The Boy Scouts' year book

Boy Scouts of America

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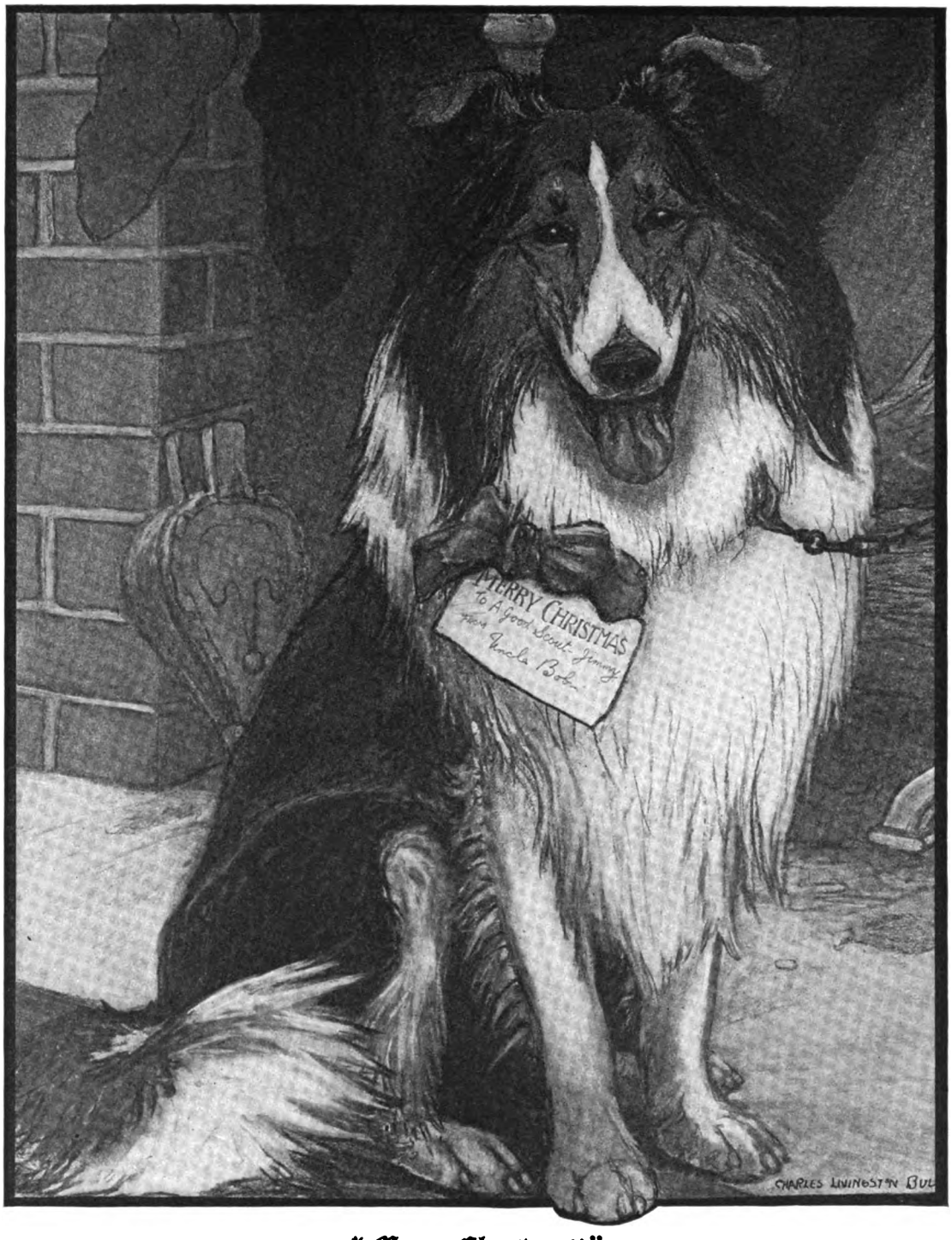

"Merry Christmas!"

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The BOY SCOUTS YEAR BOOK

Edited by
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Boy Scouts of America

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THE BOY SCOUTS OF AMERICA

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FOREWORD

Through careful study, it has been discovered that the average boy spends a great deal of his leisure time in reading. For this reason those responsible for promoting the Boy Scout Movement have definitely interested themselves in supplying an attractive and at the same time wholesome reading program for him. The official *Handbook for Boys* has now reached a distribution of over 200,000 copies a year; *Boys' Life,* the official monthly magazine of the movement, has reached a circulation of 100,000 and it is growing steadily; and in the last few years, there has been made available, with the aid of a strong Library Commission, a special edition of books for boys, known as *Every Boy's Library.* Further, the Boy Scout Movement undertakes to list books which are worth while, and is prepared to give advice, when requested, as to books which are not worth while.

Opportunity has been presented for the Boy Scout Movement to go a step further in its desire to help in providing beneficial reading matter, by coöperating in the publication of a Boy Scouts' Year Book. The first of the series of annual publications of this character was published in 1916. This, the eighth volume, like the former volumes, contains stories, articles and illustrations which are taken largely from *Boys' Life.* Their publication in these volumes will help to preserve in a more enduring form much of the splendid material which eminent men (public officials, educational leaders, naturalists, explorers, handicraft experts, scout leaders, fiction writers, humorists and artists) are providing for current publication in the scouts' official magazine.

To all of these men the thanks of the Boy Scouts of America are extended—and particularly to Mr. Daniel Carter Beard, who serves as associate editor of *Boys' Life,* finding as always the greatest compensation to be that satisfaction which comes from knowledge of greater joys and benefits brought into the lives of boys.

JAMES E. WEST
Chief Scout Executive

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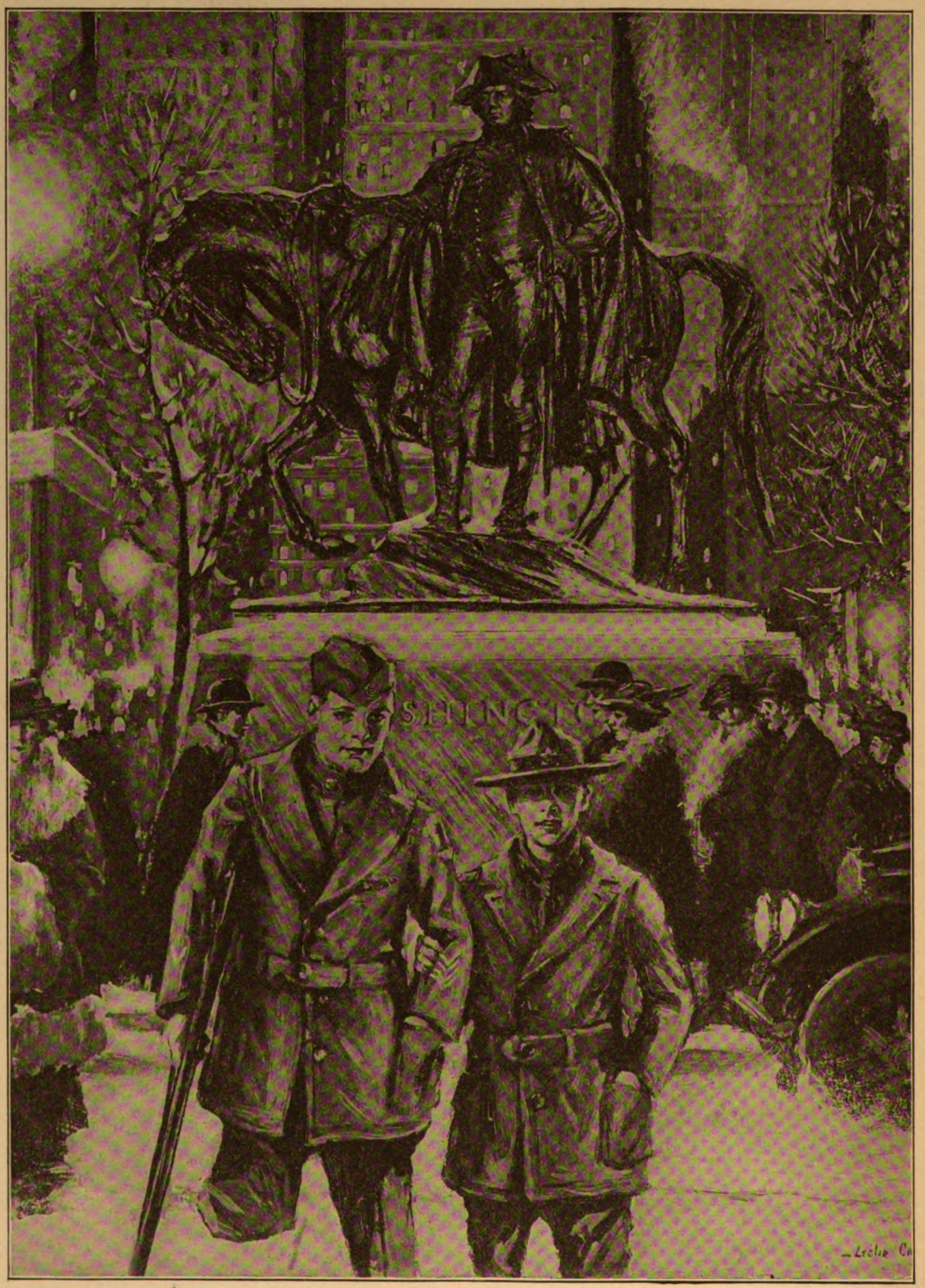

A Scout Is Helpful

He must be prepared at any time to save life, help injured persons and share the home duties. He must do at least one good turn to somebody every day.—*Scout Laws*.

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Green Paint

By Joseph B. Ames

AS the crowd of scouts streamed out of the mess hall after supper, Dick Hollister turned to his companion with a sniff.

"All that bunk about the daily good turn makes me sick!" he declared. "From the way Mr. Marvin harps on it, you'd think there wasn't another earthly thing to scouting."

Ted Mitchell hesitated. He liked and admired his chum, but this was not the first time he had been startled by Dick's radical and unexpected comments.

"Oh, I don't know," he shrugged presently. "Of course it *is* pretty important. Really, when you get down to cases, it's sort of the foundation of scouting, isn't it?"

"Oh, yes—theoretically," snorted Hollister, turning into the path which led down to the lake. "But how many fellows follow it up, I ask you? How many are there in our own troop, for instance, who do a real good turn every day? I don't mean chopping wood, or running an errand, which they'd have to do anyway, but some stunt that's really hard or means giving up something. I'll bet you wouldn't find a single one."

Again Mitchell was slightly at a loss for words. He knew himself to be a far from perfect scout, but he did have ideals concerning good turns and other things, though it was quite impossible to talk about them. Moreover his feeling for Hollister, who was nearly a year older and the object of a sincere though secret admiration, made him reluctant to take any stand radically opposed to his opinions.

Some one else, however, appeared to be untroubled by any such reluctance. As Mitchell hesitated, trying to think of some form of argument which would influence without antagonizing his friend, a sharp voice behind them spoke caustically.

"You're a hot sort of a scout! I always thought you were one of the kind who goes into a troop just for the fun he can get out of it and nothing else."

Both boys turned swiftly to behold behind them on the steep path, the figure of Charles Thatcher, a boy belonging to another troop, who from the first day in camp had been the object of Hollister's frequent ridicule. He was tall and thin and rather odd looking, with a brush of straggling hair and certain marked eccentricities of manner which made him a natural target for a fellow of the big, dominating, athletic type like Hollister. But Thatcher, though lacking physical qualifications, had a ready wit and a sarcastic tongue which he never hesitated to use, and the two were constantly indulging in verbal clashes.

"Why, here's Cholly!" drawled Hollister, with an irritating intonation on the name. "Full of good works as usual, I see. How is it you can spare time from studying up merit badges and things to come down here on a lecture tour?"

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The other sniffed. "Don't worry. It's nothing to me what a bum scout you are. You're not in our troop, thank goodness."

"You've said it!" agreed Hollister fervently. But though his voice was quiet enough, Mitchell noticed a faint flush darkening his clear tan. "It's bad enough having to put up with you for two weeks in camp. Grab a boat, Ted; there won't be any left in a minute."

They had emerged from the wooded slope to the dock where a number of scouts were getting ready to go out on the lake during the two hours which intervened between supper and the evening council fire. Mitchell made haste to take possession of one of the two remaining row boats, while Hollister, apparently noticing for the first time the jointed rod Thatcher carried, raised his eyebrow in mock surprise and consternation.

"Good gracious, Cholly!" he protested. "You're not going out fishing on a cool night like this, I hope? Why, those drum sticks of yours will get to clanking together and scare every fish within a mile. Have a heart."

There was a concerted giggle from the other boys in which Mitchell could not help joining. Thatcher's legs, displayed to uncommon advantage in his scanty shorts, were of that extraordinarily skinny type which seem to be of the same girth from thigh to ankle except where the knee-bones bulge prominently. The mental picture of these clanking together like castanets struck Ted as funny and he chuckled again as Dick joined him in the boat.

Thatcher appeared undisturbed, though Ted had a notion he was rather sensitive on the subject of his figure. "Look out you don't fall overboard," he called. "You'd sink to the bottom head first."

Hollister shouted back a brief retort and then, as Mitchell rowed away from the dock, settled comfortably in the stern.

"That guy's getting too doggone fresh," he remarked. "He needs a dressing down, and so does the rest of that bunch from Hartland."

"You've said something," agreed Mitchell, heading down the lake. "Most of them are the limit, though there's a few of our own crowd who are just as bad. That Morgan and Puggsley in Tent Two, for instance. Eliot Parker says they never do any work at all around the tent; he says they've lost the inspection three or four times just because those two are so beastly lazy."

"I know," nodded Hollister. "They're both from Troop Three at home. Puggsley is that fat, red-faced kid who's always eating. He gets boxes of stuff from Riverton and never gives even a piece of cake to anybody. Well, we can settle them at the same time."

Mitchell's eyes widened. "The same time?" he repeated curiously. "What's the idea? What are you going to do?"

Dick laughed. "What would you say to getting up a little midnight hazing party to show some of these fresh guys where they get off. Oh, nothing very strenuous," he added, observing his friend's doubtful expression. "Just a few simple stunts to let 'em know they don't quite own the camp."

"Some of them need it all right," agreed Ted. "I don't seem to mind Thatcher the way you do; he's not a bad scout if he is queer. But some of the others give me a pain, loafing along with just enough work to keep the officers from landing on their necks. It would be sort of risky, though, wouldn't it?"

"Not so very. Of course, if Mr. Marvin caught us he'd raise Ned, he's so doggone strict. But he and Wally Hammond sleep 'way down by the mess hall, and with Mr. Garnett away these two days there won't be a soul up at camp after Taps

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except that Brewster scoutmaster from Hartland."

"We should worry about him," shrugged Mitchell. "He sleeps like a log. I've seen Mr. Garnett regularly pull him out of bed to wake him up after Reveille."

"Sure. You see how easy it'll be? If we take care he'll never know anything has happened. Let's see who we can get to help. There's Buck Henger and Pat, and Russ Rogers, Gusty, Eliot Parker and maybe Kid Underwood. With you and me that ought to be plenty. Now I'll tell you some of the stunts I've doped out."

Though they were several hundred yards from shore, he instinctively lowered his voice, and Mitchell, punctuating the recital with frequent chuckles and approving comment, rowed mechanically toward the channel leading into the second lake.

A chain of three lakes lay along the bottom of a twisting, irregular valley surrounded by forest-covered hills which were almost mountains. The curving, thickly wooded shores were dotted with numerous scout camps, some of them the property of large scout centers, while others, like Camp Wawoc, from which the two had just come, were open to boys from smaller communities where the scouts were not numerous enough to have camps of their own.

At this particular after-supper hour, which was a general period of relaxation throughout the whole camp territory, the scene was especially picturesque. The lakes were dotted with canoes and boats of every description, from the small, flat-bottom affair to the big gray "battleship" propelled by ten oars. Every one who could get a craft that floated was in it. Impromptu races were frequently pulled off; good-natured raillery passed from boat to boat and strenuous, though equally good-natured, splashing contests occurred, from which the participants emerged, soaked but laughing.

There was something about it all which appealed immensely to Mitchell, who never ceased to be thankful that he and Dick had been early chosen to fetch the evening mail from the headquarters building on the second lake. Even to-night, absorbed as he was in the details of Hollister's plan, he took a half-conscious pleasure in the gorgeous glow of the western sky, noted with passing approval the way the smoke from different camp fires stood out against the forest green like slim, gray columns, or let his attention wander for an instant as a swelling volume of song came to them across the water from a group of scouts, lounging lazily on a mass of out-thrust rock along the further shore, and, as he listened, he thrilled with a feeling of exultation, a feeling that for some reason always stirred him when in camp. He could not help but wonder, vaguely, whether it was a buried instinct of his cave-dwelling ancestors revived by contact with the out-of-doors. Whatever it was, it gave him extreme pleasure; that he knew.

The mail secured, they turned straight back, omitting their usual row about the lakes which as a rule extended until the fading lemon sky warned them that twilight was at hand. Landing at the dock, they carried letters and parcels up to the mess hall, also used as a general headquarters, and turned them over to the camp director, Mr. Marvin.

A clamorous throng awaited the distribution of the mail, so it was not difficult to slip away without further delay. They were out of the building and heading up the trail, when Hollister's attention was attracted by the sight of Hammond, the young assistant director, busily engaged in painting the blade of an oar bright green. A dozen completed ones leaned against the

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wall of the rustic cook shack, and Dick paused abruptly.

"What's that for, Wally?" he asked curiously.

Hammond grinned. "So's we'll know 'em when you fellows drop them overboard or let the boats adrift and they're picked up by some other camp. I'm going to decorate the scows to-morrow. You're back early," he added. "Anything for me?"

"Why, yes; two letters, I think."

Hammond gave the oar a final sweep with his brush and stood it with the others. "Guess I'll call it a job," he remarked, replacing the brush in the can and tucking the latter carefully under the raised floor of the cook shack. "I haven't heard from home for three or four days."

He departed without further words and Hollister watched his retreating back with speculative eyes. The moment he had turned into the mess hall, the boy bent swiftly and, retrieving the paint can, caught Mitchell by an arm and hurried him up the trail.

"What the dickens!" exclaimed the puzzled Ted.

"I'll tell you later," said Dick briefly. "The first thing to do is to get this up to camp without anybody seeing us. Hustle."

In Wawoc, as with many of the other scout camps along the lakes, the character of the shore made it difficult or impossible to group the entire camp on one level. In this case the mess hall, cook shack, assembly ground, wash house and accommodations for the permanent camp officials were located on a narrow plateau close to the lake and about thirty feet above it. From here, a winding trail led up to the camp proper, where a dozen or more army tents, each on its little clearing cut out of the thick woods, sheltered the boys, whose discipline after Taps sounded devolved more or less on the scoutmasters or local officials who usually accompanied each group.

So far the plan had worked very well. Three-quarters of the scouts now at Wawoc were from the same town and in charge of Mr. Garnett, deputy scout commissioner of Riverton, who was well liked by the boys and knew how to keep order. He was not officiously alert the instant Taps was blown for the slightest giggle or whispered remark, so when his voice was heard from the officer's tent on the other side of the trail, the scouts knew it was time to subside or take the consequences.

That morning, however, he had been forced to return to Riverton on business which would keep him away two days, and Mr. Brewster, the Hartland scoutmaster, was left alone to keep order. He was an excellent leader but, as Ted Mitchell had observed, afflicted with an unusual capacity for sound slumber.

"I only hope Mr. Marvin won't think of sticking Wally up here, or maybe staying himself," remarked Dick, as they rounded the last curve of the trail and surveyed the almost deserted camp.

It was dusk here among the trees and the two reached their own tent unobserved by the few boys lounging in the others. The can of paint was pushed out of sight under the board floor, and they went inside and sat down on one of the cots.

With their heads close together, Hollister spoke for a few moments in a rapid undertone. Suddenly Ted gave a snort of laughter.

"Gee! But how'll they ever get it off?"

Dick chuckled. "It'll wear off in the course of time, I guess; or maybe some of them will have sense enough to think of kerosene."

Mitchell straightened suddenly. "Say, Dick," he exclaimed. "Why can't we pi a few of those beds now? There's hardly

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a soul around and it'll be dark in—— Oh, thunder!"

The notes of a bugle, softened a little by distance, floated up to them from the lower levels where, in a clearing beside the lake, the evening council fire was held. Presently two scouts emerged from a nearby tent and strolled down the trail. A moment or so later three others followed them at a run, but still the two occupants of Tent Three sat motionless, eyeing one another questioningly.

"Duck!" breathed Hollister all at once.

The flap of the officers' tent across the trail had been thrust aside and Mr. Brewster emerged, carrying a flashlight.

"All down to the council fire," he called.

As with one movement, Hollister and Mitchell slipped to the floor and rolled under the adjoining cots, where they lay while the scoutmaster made a tour of the encampment, flashing his light around the interior of each tent. At length, satisfied apparently that all the scouts had preceded him, he walked brisky down the trail and out of sight.

"You're right, Ted; we couldn't have a better chance," said Hollister as they scrambled up. "We'll have to speed, though. Let's take this tent first."

There followed a strenuous three-quarters of an hour. The two boys worked rapidly, sparing neither friend nor foe. In fact no tent escaped their promiscuous attention. Beds were pied, or, when left untouched, various bristly articles such as hair brushes, stiff pine twigs or sundry prickly briers were artfully inserted between the blankets and thrust well down, where unexpected contact with tender feet would cause the owner exquisite emotions of surprise. The happy discovery outside one of the Hartland tents of a tin containing two freshly caught conners caused chortles of delight, and the damp fish were instantly slipped between Thatcher's blankets. Finally, in the last tent of all, which stood at a little distance from the others and was occupied by eight scouts from Marlboro who had arrived late that afternoon, the sight of a hammer and a box of nails gave Hollister a brilliant idea.

"Let's nail their shoes to the floor," he suggested.

"That's sort of mean," objected Mitchell. "It would ruin 'em, wouldn't it?"

"Not if we drive nails through the eyelet holes," retorted Dick, seizing the hammer.

Reassured, Ted entered into the business gleefully and in ten joyful minutes every shoe in the tent had been fastened firmly to the floor, suit cases made immovable by hammering nails through strap holes, and a number of other articles similarly treated. Hollister, who had purposely spared the belongings of a single cot, surveyed the effect with extreme approval.

"It looks great," he chuckled. "They'll never suspect a thing 'till they come to lift one up. Well, let's get on to the camp fire before we're pinched."

Speeding down the trail, they made a circuit of the mess hall, and crept through the shadows with such care that they managed to reach the outside of the wide circle of scouts gathered around the council fire, apparently without being noticed. When the ceremony broke up some ten minutes later they hastened to approach the six or seven boys who had been picked to take part in the doings later and gave them a whispered hint of the night's plans. As a result they were among the last to reach the tents after the call to quarters, and, passing the Marlboro tent, were greatly entertained by the irate exclamations issuing therefrom.

"I can't move my bag!"

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"Neither can I. Some sucker's nailed it to the floor!"

"Doggone it! My sneaks are nailed down, too. Who do you s'pose did it?"

"I'll bet it was Chub. His things haven't been touched. Where is the son-of-a-gun, anyway? Oh, there you are. Think you're smart, don't you? Pile on him, fellows; ruin him."

Shrieks, the thud of feet and the creaking of an overburdened cot showed that the misplaced vengeance was being summarily applied. Suppressing their giggles, Hollister and Mitchell passed on to their own tent where similar outraged comments were arising. Dick had pied his own bed and placed a hair brush in Mitchell's, so both were enabled to add their outcries to the general din.

"Pipe down, you fellows," came suddenly in Mr. Marvin's stentorian tones. "Less noise here, or there'll be some penalties dealt out pretty quick."

The worst of the uproar swiftly subsided, but there continued a low undercurrent of grumbling, recrimination, subdued comment and question, mingled with the creak of cots as beds were petulantly remade, and half-suppressed laughter from the few fortunates who had escaped unscathed. Notable among the latter was Puggsley's shrill twitter. Hollister nudged his friend and the boys grinned significantly at one another.

Taps, followed by the energetic patrolling of Mr. Brewster, soon brought about the usual quiet, and Ted's mind shifted to the important question as to whether or not the camp director meant to occupy the officers' tent that night. Just now he stood in front of it with Hammond. Presently Mr. Brewster joined them, and for ten minutes or more the murmur of their conversation came indistinctly to Ted, who had a good view of the proceedings from under the rolled-up flap. At length, with immense satisfaction, he saw Wally pick up his lantern from the ground and watched the swinging light, which shone clearly on two pairs of legs moving down the trail and out of sight.

There followed an interminable period of waiting. Ted had slipped into the blankets without taking off his clothes and meant to stay awake until Hollister gave the signal for the foray. But as the minutes passed he grew intolerably sleepy and finally, venturing to close his eyes, it seemed impossible to open them again. He was roused by a touch on his shoulder to find a shadowy figure bending over him.

"Time," Dick whispered. "Brewster's dead to the world and snoring."

Wide awake now and tingling a little with excitement, Ted slid off the cot and together they wakened Henger, Patterson and Russ Rogers, who were in the same tent.

Outside the faint glow from a yellow, waning moon dimly illumined the camp site and made it unnecessary to use their flash lights. The five conspirators stole over to the adjoining tent to rouse Gusty and Kid Underwood, and then, with redoubled caution, approached the entrance of Tent Four to waken Eliot Parker and secure Puggsley, who had been voted the first victim.

Heavy breathing from all sides encouraged Hollister to risk a flash from his electric torch, which revealed Puggsley lying on his back on a cot next the entrance, the blankets strained over his portly form and reassuring snores issuing from his open mouth. While Parker was being roused by one of the others, Hollister motioned Buck Henger to take the foot of the cot. He himself lifted up the other, and together, with extreme caution, they carried it out of the tent to the trail.

This had been an old wood road and ran beyond the camp a mile or more be-

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fore merging into another road. To the accompaniment of smothered giggles, the unconscious Puggsley was borne along it for a hundred yards where the whole crowd halted. Then, at a whispered word from Hollister, the cot was suddenly turned over in the middle of a thick clump of fern growing beside the road.

A muffled shriek rent the air and instantly the cot upheaved in a grotesque and most diverting manner. Delighted, the boys waited expectantly for Puggsley to emerge, flushed and furious. Instead of this the cot continued to rock about; grunts, groans and puffing gasps issued from beneath, and it was at length discovered that the fat boy had not only pinned his blankets together, but likewise fastened them to the cot itself, and was helplessly entangled in the mass.

"Serves him right, the loon," chuckled Henger, rapping the bulging bottom of the cot with a switch he carried. "It's against the rules to stick pins in the canvas, and he knows it."

"Outch!" bellowed Puggsley thickly. "Cut that out! Lemme up; I'm smothering."

Then some humane member of the party righted the cot, revealing the empurpled visage of the fat boy, contorted with mingled rage and apprehension. The movement also dislodged from under his pillow a large chocolate layer cake, considerably mussed but otherwise in fair condition and lacking but a single segment. Patterson pounced on it.

"Oh, boy!" he jubilated. "Puggs, you beastly pig! Anybody got a knife?"

One was produced and the cake instantly divided. Puggsley, taking advantage of the lull, managed to extricate himself from the blankets and disconsolately watched the consumption of his property.

"Ain't you going to leave me *any?*" he whined. "I've only had a little piece."

"You're doggone lucky to get that," stated Hollister curtly. "Where's the paint, Russ? Hold him, you fellows, while I do the decorating."

The sight of the brandished brush, dripping brilliant green, wrung a wail from Puggsley that was quickly stifled by a hand across his mouth. But before Hollister had time to act, Parker was seized by the idea of making the situation serve a practical purpose.

"Let him off if he'll promise to do his share of the work around the tent, Dick," he urged. "If he don't, you can paint him up to-morrow or any other time."

But the fat boy was in a condition to promise anything, so the matter was quickly adjusted and the crowd returned to camp.

The abduction of Morgan was performed with equal success, but, to vary the performance, he was tied to his cot, carried some distance up the trail and abandoned. Puggsley, now firmly attached to the party and grown exceedingly bloodthirsty, was keen for putting him through all sorts of stunts, but Hollister curtly vetoed his suggestions.

"Who's running this, anyway?" he demanded. "We want to get after that Hartland bunch before somebody wakes up and spills the beans."

As a matter of fact, he was thinking mainly of Thatcher, whose sarcastic remarks of a few hours before still rankled. Nor was it the first time, either. Though Dick himself had started the bickering that marked their first encounter, he had realized for some time that he was no match verbally for the Hartland scout's caustic tongue. And more than once during the week the latter's digs got under his skin and made him long to shake the fellow till his teeth rattled.

Personal chastisement being impossible, owing to Thatcher's size, the present op-

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portunity seemed an ideal way of paying up old scores, and Hollister was unwilling to lose any more time in carrying out his plans.

Thatcher's sleeping place had been marked down beforehand and the two boys managed to lift his cot out of the tent without waking him. Then, unfortunately, Henger tripped over a root and gave the sleeper such a jolt that he started up with a bewildered expression and a sudden sharp inquiry as to what the dickens was the matter.

"Grab him—quick!" hissed Hollister, at the same instant catching Thatcher about the shoulders and clapping a hand across his mouth.

Instantly the fellow began to squirm and struggle furiously. But Dick managed to keep his hold, while Henger and Patterson grabbed his legs. Lifting the wriggling body, blankets and all, they started down the track, the others trailing eagerly behind.

Hollister was astonished at the amount of strength shown by the captive. All the way along the trail he never for an instant ceased his writhing, twisting, kicking struggle to escape. It was all the older chap could do to keep his hand over the fellow's mouth, and, by the time they had reached a safe distance, Dick was nearly played out.

"Grab his hands, you fellows," he said to Gusty and Mitchell. "Buck and Pat keep hold of his feet. Take my neckerchief, Russ, and tie it over his mouth or he'll wake up the whole camp. All ready? Now!"

In spite of Thatcher's furious movements the neckerchief was adjusted, the jacket of his pajamas taken off and he was held face downward on his blankets in the middle of the trail. But as Dick Hollister stood over him, paint can in one hand and dripping brush in the other, he was conscious of a sudden, curious reluctance to proceed. Something about that thin, narrow-shouldered back, on which each rib and vertebra stood out distinctly, stung him with an inexplicable sense of shame, and for a moment he held his hand.

"Don't be all night," urged Gusty. "He's a regular eel."

Without a particle of the pleasure he had expected from the act, Hollister bent over and slapped a broad streak of green down the middle of Thatcher's back. At the first touch of the brush the fellow suddenly ceased struggling and lay quite still, save for a smothered panting and an irregular heaving of his narrow, bony shoulders. Reluctantly Hollister splashed another streak of paint at right angles to the first and then abruptly straightened.

"Is *that* all you're going to do?" demanded Puggsley in an aggrieved tone. "Why don't you paint him all——"

"Yes, it is!" snapped Hollister. "Let him up."

Released, Thatcher lay still for an instant; then springing to his feet, he tore off the neckerchief and faced Hollister. He was deeply flushed and his eyes were bright with tears of rage.

"You beastly—coward!" he said in a low, uneven voice. "I knew you were a bum scout, but I didn't think you were the kind to take five fellows to—to do your dirty work."

Hollister reddened. "Better cut out that sort of stuff, or——"

"You'll beat me up, I suppose," sneered Thatcher. "Why don't you do it? You've got plenty of fellows here to help."

Hollister's lips parted for a cutting retort; then closed with a snap. "Come ahead, fellows," he said curtly, turning on his heel. "We're through with this fresh Ike. Let's get busy."

He started back toward camp, the others following. A side glance showed him

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Thatcher thrusting one arm into the sleeve of his pajama jacket and he had an absurd impulse to warn him not to put it on without first wiping off the paint. Then a turn in the trail blotted out the solitary figure.

To Dick all the zest seemed annoyingly to have gone out of the enterprise. He was furious with himself, but that could not prevent his feeling as he did—that Thatcher, in a way, was right. A spirit of bravado succeeded, caused partly by the desire to crush down those disagreeable qualms, and partly by the feeling that he must do something to retrieve his reputation. Under this influence he led the band to further depredations. Bags and suitcases were taken from various quarters and erected in a great pile in front of the officers' tent; the cheeks of sundry sound sleepers were ornamented with daubs of paint, and a number of other little stunts performed.

Finally, just as the camp was becoming generally aroused, Hollister was seized with an idea which struck him as a fitting climax to the night's escapade. The new fellows from Marlboro in the last tent of all had not yet been disturbed and, situated as they were a little apart from the rest, had apparently not been wakened.

"What's the name of that new chap—the one we sent down to the cook before supper to ask for white lampblack?" he asked abruptly, as the gang gathered at the upper end of the camp.

"Whitney, I think," answered Mitchell. "Why?"

"I'll tell you," returned Hollister rapidly. "He's green as grass, and none of them are wise to what's going on yet. You fellows pipe down and get back to bed and in about five minutes I'll rush in there with word that Whitney's wanted on the long distance 'phone down in Mr. Marvin's room. Of course there isn't any telephone, but he's sure to bite. I'll take him down as far as the mess hall and tell him to go right into the chief's room. Can't you see how wild they'll be, waked up like that in the middle of the night?"

"Gee, that's great!" chuckled Patterson. "You want to be sure and get away in time, though."

"Trust me," shrugged Dick. "Now get busy and quiet down."

Without further delay the boys scattered to their tents. Hollister sat down on the foot of Mitchell's cot, and at the end of ten minutes' interval, during which things had quieted down considerably, he rose and slipped softly out.

From his cot Ted watched his white figure disappear down the trail. There was a brief period of waiting and then the murmur of voices came from the Marlboro tent. For a moment this rose higher, and Mitchell caught a sharp, strained note of anxiety in one of them. Then the sounds died away completely.

Peering under the tent flap, Ted kept his eyes fixed intently on the farthest bit of trail in view. He had calculated that Dick ought to be back within five minutes, and long before ten passed he had begun to worry. After a few more minutes of fidgeting he was certain that something had happened, and a low-voiced discussion arose between the wakeful occupants of the tent.

This continued for some time and then ended abruptly when Hollister himself stalked in on them. He was greeted with a volley of eager questions.

"Oh, it *worked* all right," he stated curtly, beginning to strip off his clothes. "Too doggone well, in fact."

"What happened?" demanded several voices at once.

"I was pinched, that's all."

"Oh, gee! How the deuce——"

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"Because I was a nut," growled Dick, reaching for his pajamas. "The kid was nervous as a witch, but I got him down all right, and then, instead of hustling back, I slipped around to the back window to see what happened. Marvin was furious, of course. I could hear him plain as anything through the open window and was enjoying it a lot when all of a sudden somebody grabbed me, and there was Wally!"

He stopped, switched off his flash light, and slipped between the blankets. The other scouts, sitting up in bed, stared toward him apprehensively through the darkness.

"Well?" they demanded as with one voice.

"That's all," returned Hollister in a voice he strove, not altogether successfully, to make hard and casual. "I got one peach of a dressing down from Marvin. It seems young Whitney left a sick sister at home and was scared stiff. But how was *I* to know that? And you'd think a guy with any sense at all would know they couldn't run telephone wires all over a wilderness like this. Of course I got canned. It's the noon train home for me to-morrow. I should worry, though; there're other camps besides this. . . . For heaven's sake, fellows, cut out the sob stuff. I'm going to sleep."

But though he pulled the blankets up to his chin and closed his eyes, the wails and lamentations from the others had long died away, the boys themselves were sound asleep, and still Hollister tossed wakefully. For all his bravado, the climax of the evening had been a crushing blow. He did not in the least want to go home in disgrace, and down in his heart he knew there could not possibly be another camp as wonderful as Wawco. Bitter regrets, self-recriminations and apprehensive thoughts of Mr. Garnet filled his mind before he fell finally into a troubled slumber.

In the morning it was even worse. The fellows went around with solemn looks, and after breakfast he had to listen, with flushed face and averted eyes, to the public announcement of his sentence. He was then detained by Mr. Marvin to receive directions about taking the stage to the nearest railroad station, and when he left the mess hall not a scout was in sight.

"Getting ready for inspection, I s'pose," he grunted, thinking regretfully of the pride he had taken in the immaculate condition of their tent, which had thrice won the daily inspection.

But when he reached the camp he found Tent Three empty, and noticed that there was almost nobody about. Dragging out his suitcase, he began to cram his belongings into it, trying to stifle the hurt feeling in his heart.

"I should think Ted might have stuck around a little," he muttered.

But nobody at all appeared until he had finished packing and spread out his blankets. Then, just as he was picturing to himself Thatcher's pleasure at the outcome of affairs, Puggsley came panting up the trail and paused at the entrance of the tent.

"Mr. Marvin wants to see you right away, Hollister," he puffed.

"Can't he wait 'till I've got my blankets rolled?" demanded Dick crossly.

"No; he says to come down right away."

Slightly puzzled, Hollister rose from his knees and stalked out of the tent. All the way down the trail he met no one, and on reaching the mess hall he was surprised to find Mr. Marvin the only visible occupant.

"Well, Dick," began the camp director, with a quizzical expression, "I've yielded to pressure about your leaving camp. The whole crowd plagued the life out of me

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until I agreed to give you another chance."

Hollister caught his breath and a wave of crimson flooded his tanned face.

"You—you mean I'm to *stay?*" he asked.

Mr. Marvin nodded. "Mitchell and half a dozen others said they were just as much to blame, and——"

"But they weren't at all," cut in the boy impulsively. "I really planned most of it and started the whole thing going."

"I guessed as much," smiled the camp director. Then his face grew serious. "I don't want you to get away with the idea that we can put up with any more of the sort of thing that went on last night. There's no real harm in it, perhaps, except for the fright you gave young Whitney, and of course you couldn't have known about his sick sister. But to run a camp like this properly we've got to have discipline, and every one ought to have a sense of pride and responsibility in helping to preserve it. I'm sure you'll realize this when you come to think it over. That's one of the reasons I want you to stay—that, and the hope that you'll interest yourself a little more than you have in the deeper things of scouting. Well, that's all, I think. You'll find the fellows up at camp. They went around by the back trail from the council rock, where they held their impromptu mass meeting."

For an instant Hollister stood silent, his muscular fingers working nervously. Then his chin went up and he looked the director squarely in the eyes.

"Thank you very much, sir," he said briefly.

"Not at all," smiled Mr. Marvin. "You really want to thank the fellows, especially Thatcher, who seems to have been the one to stir them up."

Hollister's jaw sagged. *"Thatcher!"* he gasped incredulously. "You don't mean—Charlie Thatcher?"

"That's the one. He got the fellows together right after breakfast, I believe; headed the delegation to me and did most of the talking."

Hollister turned dazedly away and started up the trail. "Thatcher!" he muttered. *"Cholly* Thatcher! What did he do that for?"

As he climbed the ascent a dozen answers to the question came into his mind, only to be rejected as impossible. He gained the camp, still quite at sea, to find it resounding with the usual bustle and scurry preparatory to the morning tent inspection. Then all at once Thatcher himself dashed out of the Hartland tent and pulled up abruptly to avoid running into Hollister. For a moment the two faced each other in an awkward silence which Dick was the first to break.

"I'm much obliged for what you did for me with Mr. Marvin," he said gruffly.

The other's face grew faintly pink. "You needn't be," he returned stiffly. Hollister's curiosity, which had been increasing steadily for the past five minutes, suddenly got the better of his embarrassment.

"But what on earth made you do it?" he asked. "I shouldn't think—— It was because you—you really wanted me to stay in camp, was it?"

Thatcher sniffed. "Certainly not," he returned decisively. "You've never made things very agreeable for me; I'd much rather you weren't here."

Hollister gasped. "Then why in thunder——"

Thatcher squared his thin shoulders. "Since you must know," he almost snapped, "I did it for a good turn. I heard you tell Mitchell nobody ever did a good turn that really amounted to anything, so I decided to prove you were wrong."

A tide of crimson surged to the very

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roots of Hollister's sun-bleached hair and his eyes swiftly sought the ground. He could not seem to find his voice, and if he had, he felt he should not have known what to say. From behind he heard voices shouting his name and the thud of feet told him that the other fellows had glimpsed him and were hastily approaching; yet still he did not stir.

Then all at once he realized that for some moments he had been staring steadily at the can of paint, tucked last night between the roots of a tree and forgotten. Scarcely conscious of what he did, he swiftly bent and catching up the hateful thing, flung it far off to one side of the trail. Mechanically the eyes of both boys followed the streak of bright color streaming in the wake of the tin and dabbling the leaves with grotesque splotches of brilliant green. As if a spell were broken, Thatcher began to move slowly away and Dick lifted his head to behold a throng of grinning fellows bearing down on him, with Mitchell in the lead.

"Oh, boy!" yelled Ted delightedly. "You don't have to go at all, Dick! Wough!"

Hollister glanced swiftly over one shoulder. "Cholly!" he called, and there was a subtle inflection in his voice that robbed the hateful name of all its sting. "Cholly! Try kerosene."

Thatcher's thin lips twisted into a smile which held scarcely a trace of sourness.

"I'm just going to," he answered briefly.

Be Prepared!

By Edmund Leamy

Now, courage is grit to do more than one's bit
Where others have flunked or despaired,
And to know how to do what is right and is true
That's the meaning of—"Scout, Be Prepared!"

A chap may be brave, but he's tied like a slave
Unless he's equipped to be strong;
And knowledge is Might that can conquer with Right
The forces of evil and wrong.

He is but a "poor fish" though to aid he would wish,
If he has not the training to try;
No more can he help than a coward or a whelp;
He is weak as a broken-winged fly.

But a Scout who's prepared is not easily scared,
He's ready and waits the word—go,
Where others might quail and might shrink and grow pale,
He is game when it comes to the show.

He heeds not the jeers and the taunts or the cheers
Of the gang who would hinder or aid,
He's a regular fellow, true white and not yellow,
The finest that ever was made.

He knows, every hour he is there with the power
Where others could never have dared,
To save, help, to do.—He's a Scout same as you—
And he lives up to this—"Be Prepared!"

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Ginger Pup

By Neil Boyton

Illustrated by Morgan Stinemetz

NOW all you have to do is listen like the white pup in the ad of "His Master's Voice" and you'll soon hear how this happened. Of course, I learnt The Scout Law as a Tenderfoot, when we used to live in God's Country before Dad was appointed Consul out here. O yes; I knew it better than a parrot, but just like that green-feathered victrola it was sort of the words I memorized. BUT—and this is a 100% BUT—three weeks ago, when I was cooling off at our hill station, The Sixth Law managed to get tattooed on me forever and keeps. You know how tattooing sticks to your birthday suit worse than good marking ink? Well, that's the way "A Scout is kind. He is a friend to animals" is chiseled into me. And it is principally all on account of Ginger Pup, who strayed into our school in Bombay one burnt afternoon last April.

For something or other, I had been P. S.—you know, "penance study"—and our Class Master had just relented and let Noel Flanagan and Ram Chandra and me off. We drifted into the compound and it was too late to get into any of the hockey games. So we stopped under the toddy palms between Divisions and we were figuring how many blooming days of class there would be before the May Holidays, when Rani came trotting up. She's that cute gazelle from Africa, or some place across the Arabian Sea, that we have had for school mascot since old Dadar got pneumonia and cashed in his monkey checks.

Noel had some gran and if there is anything Rani hates, it isn't gran, so she started to nose into his pocket like she wanted it pronto. She's an awful beggar and Noel, he's a tease, and she'd have butted him in half in a minute, only all at once she backed off and began to pose like she was one of those ponies they have in those Living Statue groups at the Circus.

Noel, who's fat and prudent, got behind me, for he thought she was going to rush him. Then Rani spread her hoofs, just like a sailor stands on a pitching deck, and let her head down like she was specializing on ants.

Ram Chandra, who's a Hindu and ought to know, cried:

"I say, man, Rani sees a snake. Look!"

And then Noel, he said:

"My word, see the blooming pariah pup by the compound wall." And he stretched out his hand towards Nesbit Road.

Over there was a strange cur humbling himself against the wall. He was half grown and that yellow color you see in natives' turbans or some rivers like the Mississippi when they're muddy. He looked like he knew he was intruding, yet he wanted to stay, and his tail was going like a buzz saw.

Then Percy Lloyd, who's in VI Stand-

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ard and the best goal tender in our Second Division, came running near the compound wall after a lost hockey ball and he raised his stick and made to slog that foreign dog.

Instead of scooting through the gate into the road like any sensible dog would have done, that fool mutt taxied across the compound directly towards where we stood under the toddy palms.

Right then Rani forgot she was a statue, or remembered her descendants were of fighting blood, or something like that. Anyway, that gazelle went into action and tumbled Ram Chandra over in passing.

You know, Rani, she's gentle as a summer day usually, but evidently the color of that pup's coat made her see red, or else she thought one mascot was enough for St. Mary's—mascots are awfully jealous, you know. For just like a tiny crazy bull, with her three-inch horns lowered, she charged at that yellow pup.

He was busy dodging boys and hockey sticks and so he didn't have time to look ahead and she rammed him somewhere amidship on his starboard beam.

Then began the fight.

Rani must have roughed the pup's temper considerable, for, instead of looking for the emergency exit, he got up and commenced yelping and circling and feinting and the gazelle danced and wheeled and bucked like a crazy compass needle when you tease it with a magnet, you know.

The boys forgot hockey, naturally, and came running up from all parts of the school compound and the Band Boys, who had a concert for the wounded Tommies next day and needed rehearsal—I'll say they did!—broke up their practice and came piling out of the Band room.

Most yelled: "Rani. Rani. Buck him, girl!" But a few, when they saw what a game dog the pup was, cried: "Well played, Ginger Pup! Carry on, Ginger Pup!"

The argument drifted all over the compound and once the pup chased Rani right into Penance Study room and both tore out again pronto. "P. S." didn't get kept any more that day.

Then Rani turned and Ginger Pup fled down the compound towards where the Infirmary is. The chaps, who had had fever or hockey bruises and were convalescing, piled out on the gallery in their pajamas.

The two animals just drifted all over that compound and it was like following a football to stay near enough to see the fun. I didn't miss much of it, though I lost a lot of breath and it is a mighty good thing I don't smoke cigarettes. Noel, he had to sit down before the end.

Then it quit—the fight did—sudden as a clap of thunder, for down near the Wash Room, Rani got her horns into that Ginger Pup's side and lifted him. And he got another color to his coat. And she'd have done it again, only "Big Butter" Feeney, who's on the Junior Aga Khan team and our best forward, he got a-hold of Rani and patted her and let her buck him and calmed her down that way.

The boys crowded around and cheered like Britishers do. You know, not a bit all together like in a college yell with us.

About then it was, I remembered I was a practical scout, and started looking for the pup. He was lying in a corner, sobbing for breath. You'd think he had finished first in a close Dog Marathon or something. I went up and called him, pleasantlike, and he came and crouched by my boots.

I was just going to apply The Sixth Law, when Percy Lloyd picked up a stone and let the pup have it and the next second I postponed First Aid and there was another fight and it didn't take me long to stop that English boy. He never learnt boxing from an ex-lightweight champion and I did 'fore I came out to Bombay.

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After that no other boy decided to slog Ginger Pup and when the Prefect came up, he said:

"You'd better take a wash-up, Percy, and, yes, get a clean suit from the Clothes Room."

You know a bleeding nose, when it's bleeding generouslike, doesn't go well with our white clothes. And Percy, he didn't know how to guard his face at all.

When Percy Lloyd went off to the Wash Room, the Prefect, who was looking kindly at the panting pup, said to me:

"Well, this pariah pup is game clean through, Dickie Shaw, and you had better take him over to the Infirmary and get some assistance making him presentable."

I'm dead sure Father Prefect had seen the stone that Lloyd had slogged at the pup and that's why he didn't say a word about fighting.

So Noel Flanagan and Ram Chandra and I took up Ginger Pup. There was one big rip and some cuts on his side, but the Brother, who doesn't like Rani any too much, put some courtplaster on them and stopt the bleeding and gave Ginger something to drink.

When we came out into the compound some of the boys came over to see Ginger Pup and make friends with him, 'cause they like a game one and they were all talking about that roaming fight. Gee! they didn't quit talking of that for a week.

And within that time the pup was a proper favorite of all the boys at St. Mary's, 'cause he was a good mixer and knew how to handle kids and he even made friends with Rani. For as soon as she saw him around our compound several times, she tolerated him and, by and by, even played with him; racing—and, you know.

But the one particular pal of Ginger Pup was me. He'd have slept at the foot of my cot in the dormitory, only the Prefect had different ideas and Brother Infirmarian, he let Ginger have a vacant cot in the Infirmary.

Well, after the exams were over in April, the May Holidays actually came and we were to start. Father Rector said I couldn't take the pup with me, as Rani was enough mascot for the hill station.

So the morning of leaving I brought old Ginger to Gopal's hut down back of the Miniature Range. He's the hamal (sweeper) who cleans up, you know. And I tied up Ginger honestly, no granny knot, and he strained and yelped when I went away. I felt awfully sorry to have to go and leave that dog and so did Noel and Ram too.

Marching to Byculla Station, I could hear Ginger's voice and it didn't sound reconciled the least bit. At the station The Poona Mail came and we boys piled into a reserved compartment, and Trevor Casey, who had charge of Rani, started pulling her in, kicking awfully. She doesn't like train travel, so she balked like a little Missouri mule, but Trevor, he said more than his prayers, and in she came, pawing like she had hysterics.

Now when Rani's that way and you got shorts on and are in a crowded compartment, you got to watch your bare knees, or she's liable to puncture you accidentally. I was doing that hard, when the train started to move out and then I heard some natives yelling on the platform.

I stuck my head out the door quickly and next second something yellow and racy was alongside our train compartment; a broken rope trailing along the platform.

Those Hindus and Mohammedans must have been yelling "mad dog" in the vernacular, but I didn't. I opened the compartment door wide and cried, "Ginger Pup! Come in, you old mutt!"

And Ginger Pup, with not much breath left, leaped frantically at the open side

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door. He slipt and scratched earnestly with his claws to get a purchase, but he would have fallen under the train wheels if I hadn't caught him by half of his ear, and Noel Flanagan, who was handy, hadn't pulled both of us backwards into the moving compartment.

I'll say we St. Mary's boys yelled, but Ginger Pup, he lay at my feet trying to catch up with his breath, which must have lapped him twice easily.

As soon as The Poona Mail got to Khandala, Noel and Ram and Percy Lloyd and I—for we had made up and Percy liked Ginger Pup too now—we all made a delegation and waited on Father Rector and he said:

"Well, as long as the dog is actually in the hill station, he'd better stay."

So that was settled satisfactorily and Ginger Pup went to all meals and on picnics and swims and hikes with us every day, and, at night, officially he slept on a vacant cot in The Boys' Barracks. That is, when he wasn't sleeping unofficially with me. For old Ginger liked all the boys and the Prefect, but he liked this here scout better'n any of 'em. And he proved it too!

But let me go on. The last Tuesday of the May Holidays, we four—that's Ginger Pup, Ram Chandra, Noel Flanagan and I—got permission to go on a private picnic to Lohogad. For we had had a general picnic to that place the Saturday before and Noel had hidden his new hockey stick there in a safe hiding place at tiffin time and then, as usual, forgot all about it till we got back to the Barracks.

So Tuesday we got up, when it seemed about midnight, to get the early train to two or three stations up the line and then we hiked across country towards the ruins.

You know, or maybe you don't, that Lohogad is an old rock fortress from the days of Shiviji and the Duke of Wellington—only he was plain General Wellesley in those days—and it's on a high lonely hill and you climb up a road crisscrossing the face of the hill. Once within the outer walls, you think you are in the streets of a deserted Jerusalem, only it's more deadly quiet and abandoned-like. For nobody lives on Lohogad now—only cobras and some gray ape families and the usual horrid scorpions.

Climbing steep hills in India is worse'n going up the Washington Monument when the elevator is out of order, and it was never running the two times I went up it, so I ought to know.

I shouted: "We are going swimming first." But Noel said no, he had come to get his new hockey stick, so we hunted a bit and found it in a kind of a dark cave with bats, just where he had hidden it. Then we raced across the walled plateau for the tanks and I beat out Ram and Noel, only Ginger Pup came first.

These tanks on top of Lohogad are cut out of the solid rock—I guess to hold drinking water when an army besieged the fortress in the good, red days—and they have crazy, half crumbled-away figures of four-armed and two-headed native gods carved around the sides, and little worn stone steps leading from the water's edge.

But I hadn't come to study idolatry. So I dove in, twisted, and came up floating. It's a funny feeling, swimming on top of a high, deserted hill and only seeing sky; like being in the canvas deck pools on the Pacific liners.

Finally, we got tired and cool and hungry, and after we had eaten down to the bottom of our tiffin baskets and had stoned a cobra we saw coiled on a rock in the sun, we felt sleepy. So Noel and Ram and I went off to an old, ruined temple by the southern wall. Ginger Pup spotted another ape and he charged away after it.

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This temple was just a square stone room with a Hindu stone god—Shivi or Vishnu or one of that kind of idols—in the center. It was shady there, anyway, even if the floor was hard stone, and the next I knew I was dreaming I was on top of the Woolworth Building in little old distant New York, where I belong by rights, and I could see the Jersey side and the big electric clock and piers and ferry boats and a liner in midstream and tugs working around her like ants bringing home a worm.

Then something snuggled against my legs and half awake I knew it was Ginger Pup and he had gotten tired of daring that ape to come down out of the palm tree and say it man to man.

I reached out my foot and kicked him friendly-like and his tail thumped some Morse Code on the stone floor of that Hindu temple in answer and I was asleep again.

Then, maybe an hour or a week later—I don't know as I had left my wrist watch back in barracks, 'cause it needed fixing—I half awoke and an awful feeling seemed to come over me.

I don't know just how to describe it. You know how, in bed at night, you sometimes seem to feel your Guardian Angel hovering by, and you feel safe and comfy, like the blanket was his wing. That way. Well, this feeling was entirely different from that. I don't mean my Guardian Angel didn't feel on the job, but just at that moment he didn't feel so near, though he really was all the time.

I wasn't awake and I wasn't asleep, but I knew I was in India and not America. I opened my eyes and I could see that stone idol in the shady light of the pagan temple—its four hands and evil-jeweled face, partly crumbled away, and a string of withered yellow flowers wreathed around its neck.

Then there was a scraping and around the base of that idol poured something dark and swayey. It reared and I was wide awake and looking straight at the greenish scales and hooded head of the largest cobra I ever, ever saw. Believe me, I don't ever want to see any bigger, or smaller for that matter, ever again.

That poison snake was rising and swaying like a rubber candlestick almost over me and I knew enough to imitate stone and S. O. S. Heaven.

Seconds take hours to pass sometimes and I must have grown an inch, when Ginger Pup, curled up at my feet, stirred.

Then he did the bravest act a dog ever did. He could have run away, but he sprang over my stomach directly at that deadly head.

He wasn't quick enough, for lightning is a local alongside the express speed of a striking cobra. Both fell on my breast and the snake drew back and struck that pup again. I let out a yell.

Then the cobra disappeared around the base of the Hindu god and Ginger after it. Noel and Ram Chandra were yelling too, and I felt very, very sick and that weak I couldn't have wrestled with a sunbeam.

I must have fainted, for some time later my face was all drippy. When I was able to register impressions I was resting in Noel's lap and he was looking mournfully at his new hockey stick which was split in two. There lay the cobra in the sunlight of the doorway with its back broken.

Then I remembered and I whistled for Ginger Pup. But Noel held me and Ram gave me a pull at the water bottle and tried to make me rest. I wanted Ginger Pup and I struggled to my feet.

I found the pup on the other side of the little temple. He was all swelling up.

When I saw him I cried and I didn't care who saw me, 'cause my dog could

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have run away and left me to that awful cobra.

But that isn't all. Wait till I tell you the better part. When I was able to hike, we wrapped poor Ginger Pup in my khaki coat and took turns toting him down the steep hill path from Fort Lohogad, and in a little village on the plain we hired a bullock cart from the headman and came back to Khandala.

Ginger Pup was laid out in a box lined with a red dormitory blanket in the long corridor outside the Boys' Barracks.

The Fathers and the boys all came to see him and there wasn't much else talked of in our compound. Though that morning the First Division team had played the wounded Tommies at the Soldiers' Barracks up the road and beaten them two nil.

Now I'll say this for Percy Lloyd. He's the right sort and the idea was all his. He didn't say a word to me, but he went to Father Rector and he said it was an excellent idea and Ginger Pup deserved the honor.

Then young Lloyd told me.

You never saw a dog funeral with full military honors, did you? Well, I did once, and I am glad I was chief mourner.

For in the cool of the evening, the Band Boys got out their instruments and lined up. First came the Band, playing "Tipperary" slowly and it sounded just grand and solemn. Then Trevor Casey led Rani on a chain, for we thought she'd like to attend Ginger's funeral, and she was the only lady who did, all the rest were men.

Noel and Ram carried the box, all nicely wrapped in that red blanket, for the Prefect said we could bury it with Ginger Pup. And the Guard of Honor, eight boys in uniform with guns reversed, marched either side and the other sixty boys trailed behind. A lot of the Third Division kiddies were sniffing openly.

Percy, at the last moment, got another idea and he wanted to toll the chapel bell, but Father Rector said there was no need as all would be marching.

The funeral wound around the compound and below the Boys' Barracks, just at the edge of The Ravine, where the jungle starts, the little grave was dug.

The Guard fired the last volley and Noel and Ram and I filled in the hole, and we all came away.

Only later, Noel and I got a board and we cut into it—it took a whole afternoon with our scout knives—this sign. And if you ever come up to Khandala in the Western Ghats, you can see it plainly, for it is over his grave and it reads:

HERE LIES
GINGER PUP
A PUKKA HERO

But I don't need any sign to remember him, and likewise I got chiseled on my brain, "A Scout is kind. He is a friend to animals," 'cause I've learnt for life, The Sixth Law Pays.

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Then he did the bravest act a dog ever did

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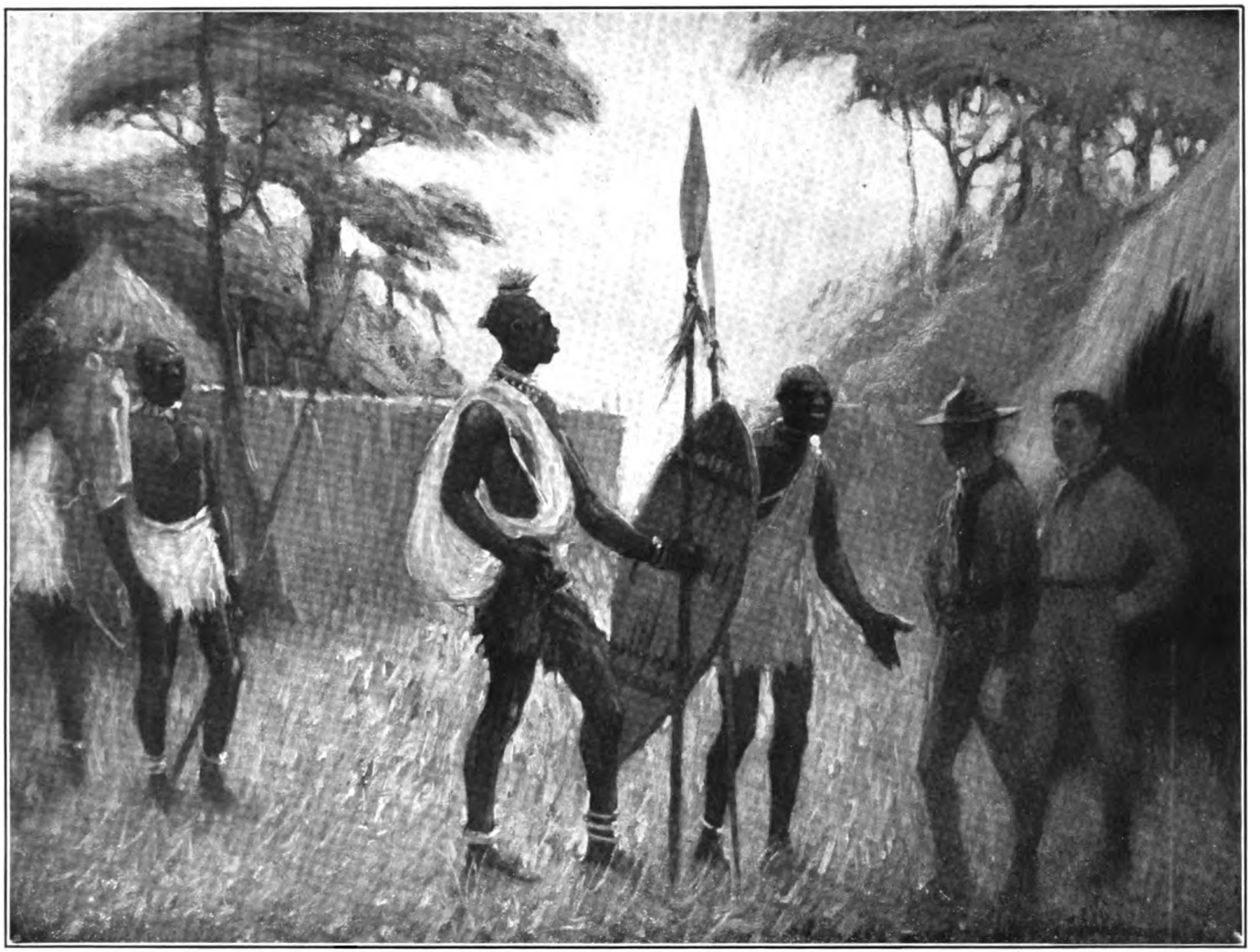

Some ten minutes later he beheld this same man coming toward him

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Red-Cross Terry

Story of a South African Scout Troop

By Capt. A. P. Corcoran

Illustrated by Clyde Forsythe

TERRY MALONEY was red-headed. Moreover his temper was uncertain. Both of which facts probably accounted for the facility with which his scientifically directed fist was forever colliding with his co-scouts' jaws.

They named him the "Red Terror," but strictly in confidence. It was not safe to call names to Terry's face. Meade, however, was worried. He did not want to eject Maloney, and yet—he decided to discuss the matter with Bradley Marshall.

"Oh! There's nothing wrong with the kid," declared the patrol leader. "Too much energy—that's all. He just needs the proper direction to place his punch. We gotta find it for him."

They did. Wherefore it happened, two weeks later, that the troop had changed his name to "Red Cross."

"First he fills the hospitals. Then he empties them," said Arthur Smith facetiously. "Double crossing himself, eh, what?"

The scouts refused to laugh. They all approved the change in Terry. In fact every one was delighted—except his father.

Terry's father was the best surgeon Masindi boasted. It was his profession that had prompted Marshall's scheme. It consisted in suggesting to the "Red Terror" that he carry on the family tradition in the troop.

"You see," Meade put the matter flatteringly to the boy, "you're the only one that has a chance to learn something extra in that line. And the more you pick up outside of the regular first aid course, the better for the whole of us in case of accidents. Understand?"

Terry nodded, pleased at the new trust reposed in him. He was to be no less than medical adviser to the troop. He decided to divert his energy to the novel channel of study. And henceforth life became difficult for his father. At every meal he had to face a cross-fire of questions. What was the best treatment in a sudden attack of appendicitis? How should one handle a case of tropical fever? Suppose they came on a village ravaged with sleeping sickness?

Dr. Maloney breathed a deep sigh of thanksgiving when he learned some weeks later that the troop was leaving on a trip.

"At last I can eat a meal in comfort," he declared to his wife. "That boy is absolutely ruining my digestion."

This time the troop was heading East, in a new direction. They were going to investigate the Lake Chioga flats.

Their way lay first over hard roads on which the horses' hoofs rang out with the music of hammer on anvil. As they galloped resoundingly by, they could see the yellow roofs of native huts peeping out picturesquely between the banana groves. Their first halt was outside Mruli, and they lunched sumptuously on eggs and

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milk, presented to them by a tall and evidently admiring chief. They camped early that night on flat ground that looked like a swamp well baked by the sun. And they were up betimes to scour country that at first held little of interest.

During the day they sighted the broad expanse of the big lake. Hot, low-lying land where they lingered, made lazy by the sun. For some time they ambled through it, fishing, finding amusement in seeking such fauna and flora as interested their varied tastes. It was on the early afternoon of the fourth day that chance offered them a new adventure.

They had been riding through a wood, and, as they came out in the open, Marshall's eye was caught by a procession of men and beasts that was wending its way toward a forest on the right.

"Looks as if they were breaking up camp or something," he said casually to Meade. "Guess we ought to come on some deserted huts soon."

The troop eyed the procession carelessly. Trekking tribes were not uncommon. Then, as they swept around a clump of trees that stood directly in their road, they saw that Marshall was right. Here indeed was an abandoned village. There were some twenty dwellings, of mud mostly, all silent, seemingly empty. But, as they headed toward the single street, they perceived a man lying outside one. He was propped against the wall in a peculiar, inert pose. Meade dismounted, and was astonished to find him alive. The eyes, however, which looked at him, held a strange, glassy stare. They gave no hint of surprise or recognition.

"The fellow seems far gone," said Jim, turning to the others, most of whom had followed suit and dismounted too. "Wonder if there are more like him anywhere around?" He was addressing Bradley now.

"We'd better see," said the patrol leader. "You fellows wait here," he ordered the troop.

The two began a canvass of the huts. In one they found a woman with two children, also sick. A second disclosed another woman prone and almost lifeless to all appearances. In a third were two men, evidently feverish but quite conscious. They were regarding this couple, when a voice spoke up behind them.

"It's a fever-stricken camp, and the sound ones have deserted—as usual." It was Terry speaking. He had come along uninvited.

Before they could remonstrate, he was out of the hut again, and inspecting the village with a calm, professional eye. Then he darted off in the direction of a thatched dwelling that stood isolated from the rest, enclosed with a tall reed fence. Quite obviously it was the palace of the chief. He came running out of it presently.

"This'll make a fine hospital," he announced. "It's divided into three rooms, and has fresh rushes on the floor and all. Say, you chaps will have to help me, though, to get the patients in."

The leaders looked at him and at one another.

"Well, I guess he's right," said Bradley Marshall.

They set to work. None of the invalids offered any protest—they were too weak—until they came to the two semi-conscious men. They resisted, strenuously. It was decided to let them alone.

"'Fraid you'll have to have two hospitals, Red," said Meade.

"Oh! they're not bad anyway," said Terry calmly. "The thing is, now, to get them food. I can treat them all right—dose of salts each and plenty of quinine. Nothing like quinine, you know, for these fevers. But they must have nourishment

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—milk is best. I've got to get milk. And of course those blighters have taken the cattle. Where can we get a cow?" Terry was frowning excitedly.

"Keep your hair on, old man. We'll do our best," said Jim.

He and Marshall walked back to consult with the now impatient troop. M'Teke confessed to knowing of a village some few miles farther. He was dispatched with two scouts to negotiate for the purchase of a cow. Meade looked after them, plainly perturbed by the situation. Here was a problem such as he had never confronted before.

To leave these villagers to die unaided was out of the question. But it was equally unthinkable to expose the whole Troop to infection. He glanced at Marshall who was evidently puzzled, too.

"Guess you'll have to go back with some of the boys, Brad," he said.

"Looks that way," said the other dejectedly. "How many ought to stay?"

"Terry, of course, and M'Teke and myself and perhaps one more. We might draw lots. Too late to start to-night of course, but early to-morrow——"

"We'll get help back to you in a few days—six at the outside," promised Bradley.

"Sure," said Meade easily.

They turned to impart the decision to the scouts, who received the news reluctantly and promptly set to work to find out the man fortunate enough to remain. It proved to be Arthur Smith. They had just made their choice, when the foraging party returned leading the cow. They had found it in a field adjoining a native village. The chief had been absent. At least they could see no one who might fit the rôle and M'Teke's lingual powers had failed to make the others understand the need. So there was nothing for it but to abduct the animal, leaving presents for its purchase price. The guide was shaking his head disapprovingly, as they told the tale. And Meade looked perturbed. Yet what else could they have done? It might be a question of life or death. They had no alternative. Terry, however, saw no occasion save for rejoicing. Now he could promise a speedy recovery for at least two of his patients.

They camped early that night at some distance from the village. At dawn the departing band set out, and the self-appointed medical corps prepared to establish themselves in their new temporary home. While Terry tended his cases, the others began to build. They would have to have some shelter and it might not be safe to use a hut.

Under the direction, therefore, of the skilled M'teke they cut down several Y-shaped trees, and having planted them in the earth parallel to one another, laid on them some limbs divested of leaves. Here were their roof and walls. Over them they laid elephant grass thickly plaited. This was protection from the sun. Rushes were strewn on the floor for comfort and coolness. Then with their stores piled in one corner, they were ready for housekeeping.

The first day went by busily without untoward occurrences. At night Terry reported the two men much improved. The other patients were progressing quite favorably. They went to bed satisfied with a sense of something accomplished. The morning, however, brought trouble in its train.

According to the division of duties, Terry had gone to the hospitals, Meade to the horses, while the others prepared the meal. But no sooner, it seemed, had Jim departed than he was back again, shouting:

"The horses! They're gone!"

At the same time Terry came running from a hut, demanding whether any one

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had seen the men. But no one had. They scoured the village. Not a trace of them could be found. They had decamped, taking the beasts.

"The swine!" cried Terry hotly. "After we cured them and all!"

"Oh!" Meade tried to soften the blow. "Probably they just wanted to catch up with their own people."

"Well, one horse each would have done them," said Smith.

There was no denying that. The boys sat down to eat in silence. It was not pleasant to consider their position, thus cut off from contact with civilization. They decided, however, not to dwell on it. And once more they set to work. It might be as well to reinforce their position.

Again with M'Teke's aid they set about building a fence that would enclose their hut. They would make it of wattles some eight feet high, with a door in front fastened by bolts inside. It would give them some sense of security at night. They had it almost half finished, when it was time for supper. And then Smith, going to fetch water came running back to report an incident that added to their trouble of mind.

Straightening up suddenly from the stream where his vessel was filling, he had been aware, he thought, of some movement in the brushes near him. He had turned just in time to catch a gleam of dark brown eyes and a flash of brazen ear ornaments.

"I made for the fellow," said Arthur, "but he was too quick for me, of course. He headed straight toward the village where we got the cow."

"Oh! he was just out for a stroll," said Terry, "and naturally stopped for a look at you."

"I'm not so sure," replied Smith.

M'Teke was shaking his head, and Meade looked grim. This might mean trouble. In any case he considered it unwise to take chances, so that night they took turns on guard. Nothing happened. But the following day, while they were finishing up the fence, there came to them the first sound of drums.

It was toward evening. The sound came softly on the windless air, rather musical at first and rhythmical. It reminded them of home with its suggestion of a military "taps." They listened to it in silence, feeling strangely alone, like pioneers in a new land.

All that night it kept up at intervals. *Brum-a-rum-rum*—it began to get on their nerves. They slept badly, their rest, of course, broken by the turns on guard which Meade ordered. Breakfast time found them irritable and uneasy.

Brum-a-rum-rum—it grew louder now.

"Working up their Dutch courage, of course," said Terry at last, voicing the others' fears. "Wonder how long it will take them to get to the sticking point?"

"Coupla days probably," said Smith, with a grim smile.

"Great Cæsar's ghost!" exclaimed Red.

There was nothing he disliked so much as waiting.

But Smith appeared to be right. All that day and next night the ominous rumble reached them, but no glimpse of a savage did they see. And even if they could forget the distant threat, there was M'Teke as a constant reminder of danger. He went about with dilated eyes and hands that shook with fear. Only his love for the scouts and a sense of loyalty kept him from running away. But there was no concealing the predicament in which they found themselves now. The scouts discussed it openly. How protect themselves? That was the question.

They had only one gun between them, for the others, left in their holsters, had been taken with the horses.

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"You've got to take it, Red, whenever you go to the hospital," said Meade. "Meantime the rest of us sit tight inside the barred fence. We don't know when they may drop on us."

"The sooner the better," said Terry. "And they'll get a warm reception," he added fiercely.

Jim smiled. He knew there was nothing Terry would like better than a fist fight with their chief.

The event, however, proved the excellence of Meade's foresight. It was the afternoon of their fifth day in the wilderness, and Terry was in the hospital, bending over his worst case. The rumble of the drums had seemed nearer that day. Now for some time there had been a lull, and he had temporarily forgotten them in his delight at the improvement in his patients, when his attention was attracted by a noise of commotion outside.

He rushed to the door, and there, not ten yards from the fence enclosing the boys' hut, was a horde of savages, advancing in order, spears raised.

"Hm-m. They know where they're going all right," he commented. "Must have had their spies out."

But even as he spoke, his mind was busy with another problem. Those three were in that hut, quite unarmed. It was only a question of a short time until those savages ripped their way through the fence, and then—— It was he, Terry, who had got them in this hole. Only for his knowledge of how to treat the fever, they never would have stayed, for they could not have helped the savages without that knowledge. It was up to him, therefore, to save them at all costs. Suddenly he saw a way. The savages had reached the fence.

He drew out his revolver, fired into the air, and then darted back into the hut and shut the door.

Immediately, surprised and startled, just as he had planned, the savages turned and with a yell made for the hospital. He could hear their fiendish shouts of delight at finding the enemy. Soon the pad of their feet was audible outside the hut. He could hear it above the cries of the terrified children and the women's shrieks. The mother, moreover, had thrown her arms around Terry's knees. He pushed her away from him, and, huddling them all in the center room, waited, gun in hand. He had but four bullets and he meant to hoard them.

Now he could see the spear heads tearing at the thatch. The pants and grunts of the attackers reminded him of an angry pack.

A long spear came through, caught the male patient lying on a pallet and tore through his flesh. The man let out an agonizing yell of pain which was answered from outside by a fiendish scream of triumph. Terry fired at the arm that held that spear, and hit. The spear hung, but he let it lie.

He could see the walls wavering now and tottering beneath the weight of black bodies. They would be in in a minute, he decided. And then—— What then?

Tense, white-faced, but unterrified, he waited. And then, suddenly, he was aware of a new commotion outside. He thought first that the two others had come to his aid, and to himself he called them fools.

"They'll get killed," he cried aloud. Strangely enough he was more afraid for them than for himself.

But it could not be. Unarmed, what could they do against the savages? How could two boys draw them off? And drawn off they were already. He could see spears being wrenched from the hut. He could hear feet running in retreat. And yet he did not venture so soon to show himself. Curiosity, however, overcame him.

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Cautiously he walked to the front of the house, and peered out. A second band of savages seemed to have arrived. They were fighting between themselves! He was wondering what new terror this might mean, when from behind him came a shrill cry of joy. He turned, and saw the two women throwing their arms up in delight.

The newcomers were no other than their own people!

Terry turned his eyes again to the battle. It had developed already into a rout. The late attackers were fleeing; the others pursuing. They had reached the woods now. Puzzled, he walked out and over to the hut.

Smith, Meade and M'Teke were standing by the door. They had been just about to come to him, but on seeing him they stopped, waving delightedly.

"What d'ye think will happen next?" he asked them wearily.

They shook their heads. In silence they remained, awaiting developments. The pursuers were already returning from the attack. And it was Smith who presently pointed out the two sick women in the act of ardently embracing the knees of a tall man.

"Chief," said Meade shortly.

"Fancy we're safe," said Smith.

The others nodded. He was probably right.

Some ten minutes later he beheld this same man coming toward them, followed by two others leading—they could hardly believe their eyes—the horses!

The chief salaamed, and made a motion toward the beasts. The boys bowed and smiled. They turned to M'Teke. Could he interpret? He and the ruler began a conversation. Evidently they had discovered a common tongue.

Presently the guide turned to the scouts.

"Sick men well. You well. He come back home. You good men. Others bad men. He glad he save you. He thank you." Such was the gist of the message M'Teke delivered to the boys.

"Give him presents," said Meade.

M'Teke departed and returned, bearing canned meat. More salaams. The chief departed.

The boys, looking after him, breathed a deep sigh of relief. Terry alone said nothing. They looked at him. This was strange. But Red was experiencing new sensations. First it seemed to him that the voices were far off. Then the sun had begun to grow peculiarly dim. Finally the earth seemed to be rising up to meet him. He grew hot and cold by turns. Then came some words from a great distance.

"You take his head," Meade was saying. "I'll take his heels."

He made a great effort. Such indignity for a chief of medical staff!

"I'm all right!" he cried.

But they carried him off and put him gently to bed.

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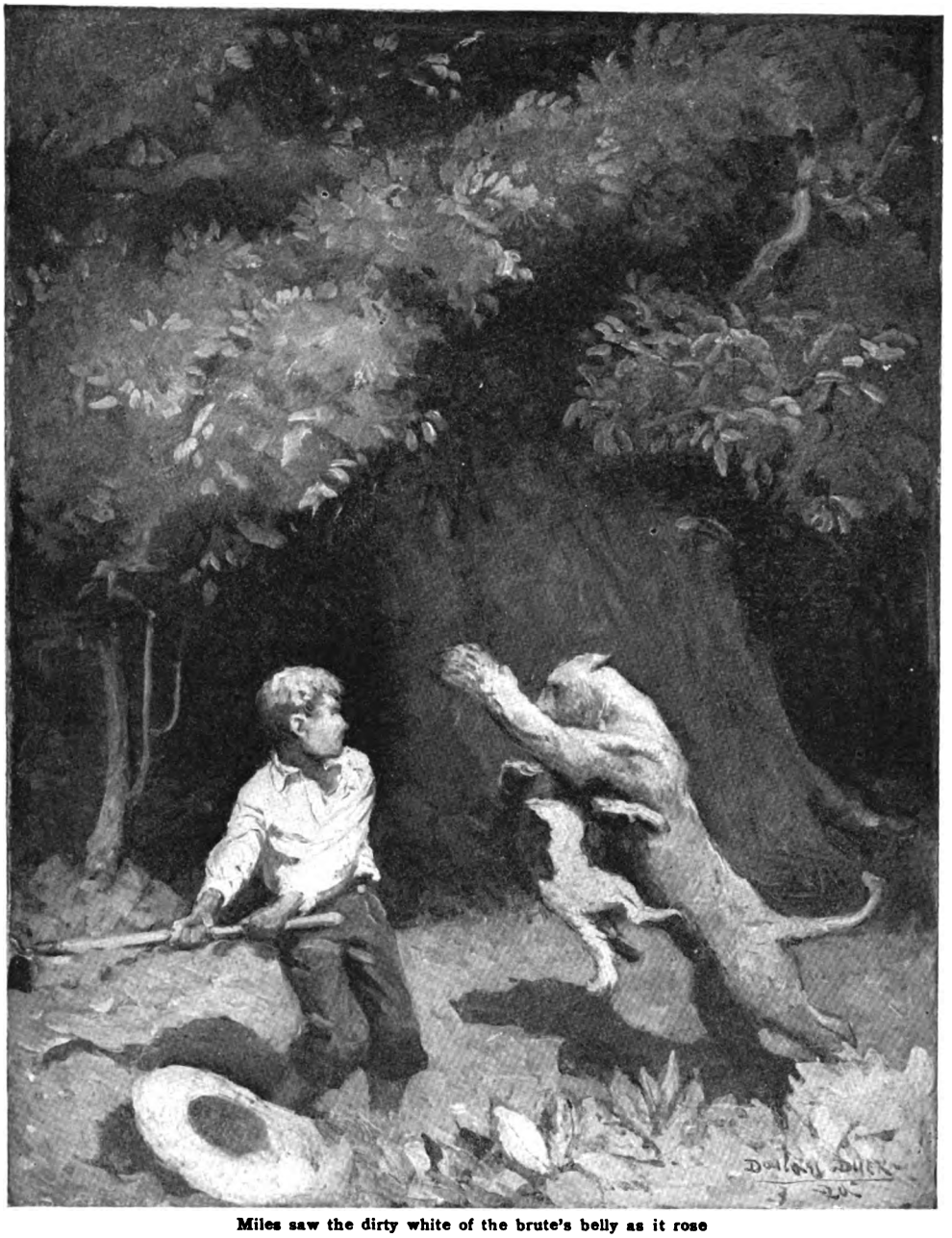

Miles saw the dirty white of the brute's belly as it rose

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Mississippi Miles

By J. Allan Dunn

Illustrated by Douglas Duer

THE soil was black, heavy and fertile between the rows of tobacco plants with their smooth, flappy leaves that were so motionless in the windless heat. The earth was sticky to the bare feet of Miles, toiling with his hoe to destroy the weeds and prevent the surface of the dirt from caking and so drawing out the moisture on which the tobacco flourished, transmuting it by some subtle chemistry of nature into the foliage of the "fragrant weed" that, presently, would be plucked and wilted, dried, made up into *lugs* and *hands*, and sold on the *levee* at New Orleans or at Natchez or St. Louis for grinding into snuff, for rolling into cigars, to be mixed with black *perique* and tinctured with licorice and rum for smoking and chewing, fated to be the solace of many since the day when Sir Walter Raleigh "tooke a pipe of tobacco a little before he went to the scaffolde" on the twenty-ninth of October in the year sixteen hundred and eighteen, two hundred-and-twenty-two years before Miles, itchy and languid from the sweltering heat and many hours of labor since cock-crow, dug at the weeds between the rows belonging to Jake Peirson, Tobacco-Planter of Louisiana.

Any romance that might be attached to the final outcome of his toil was lost upon Miles. He hated tobacco with the virulent hatred of fourteen years, set everlastingly at uncongenial work. He envied his dog Tige, a nondescript mongrel who had deserted his young master and now lay in a shallow of the stream that edged the clearing, with ferns and mint about him and, overhead, the shade of hickory and maple, cocking a tolerant eye now and then at some gray squirrel that frolicked merrily despite its fur coat and the heat.

Tobacco, to Miles, meant rising before the sun, working all day in the field, season in and season out, coming back to Peirson's cabin in the dusk for corn-pone and bacon, going to a corn-husk mattress so tired that, when he waked, it was time to go to work again. He had been doing this since he was eleven. Seeding, transplanting, hoeing—hoeing—hoeing, topping the plants, plucking them when the middle leaves were right, wilting them, bearing them to drying shed and then to the barn and, at the end, seeing Peirson go off to the river and the cities to sell his produce while Miles kept cabin with Tige.

"It ain't fair," he said aloud to no one in particular. "I'm jest as if I was a slave. I wonder if Peirson reely owns me? He acts like it."

He hitched up one shoulder as he spoke. Under his faded, frazzled shirt, now stained with sweat, the weals of one of Peirson's best "lickin's" still stung and galled against his primitive suspenders. That had been given for not completing a certain number of rows, and, if he did not speed up, there would be another "licking" due and sure to be administered for a like failure.

"It ain't fair," repeated Miles as he

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lifted the man's size hoe, too heavy for his effective wielding, and dug viciously at the weeds that seemed to be always maliciously pushing up out of the soil. "A feller ought to git a little time to himself, to go somewheres an' see somethin' once in a while. I ain't never bin fishin', or squirrel huntin' or out after possum, not even after the crop's in. There's allus something for me to do. I wish I was Tige."

Tige, hearing his lord talking to himself, pricked up his ears and turned bright, loving eyes in the direction of the sound, whither his nose, the best part of Tige, also guided him. His red tongue slid in and out of his mouth easily. That was Tige's method of perspiring. But he made no effort to get up from that cool run of water, half-way up his ribs. There was no sense, according to Tige, in trailing his master up and down those rows, nothing to see or do, altogether too slow and hot. He would have done it had he been ordered, but Miles was far more considerate of his dog than Peirson was of him. Tige did not roam away; he kept in touch with his owner though eyes and ears and sensitive nose were keenly alive to every sight and sound and scent in the woodland about him and sometimes his spirit longed for adventure when, on the other side of the stream where the trees were thick, something especially attracted his curiosity.

Miles worked far down to the end of a row, where he leaned on his hoe for a minute and gazed across at Peirson's cabin and sheds. A tall figure came out of one of the latter and shook a fist at him, a rough voice grated across the distance with threats and oaths. Miles made a sidelong grimace and rounded the row to the next one. He was barely out of sight of Peirson when a fierce barking, a yap of pain, followed by another burst of defiance, welded into a worrying, snarling pandemomium of rage and struggle. Tige had found trouble.

Miles raced down the row, hoe in hand, and cut across to the stream, splashing through it towards Tige. The dog was barking and leaping at the foot of a maple and Miles let out an "Oh!" of angry pity as he saw a score of scarlet marking Tige's tawny coat where some angry claw had raked and maddened him.

On a low bough, crouched with all four feet close, head down, he saw the body of what seemed an enormous cat, far larger than any lynx or wildcat. Miles had seen those before. The color of this beast was yellowish brown, darker on back and tail, grayish of head and dirty-white beneath. It blended so wonderfully under the spotted shadows of the leaves that it was hard to take in its exact outline. The switching, jet-black tip of tail was plain and plainer were the yellowish tusks and the bared, snarling gums in which they were set.

Tige was a big dog and a powerful one. He was a little larger than a big Airedale, not altogether unlike one in head and stocky legs, broad chest and shaggy coat. Whatever his variegated ancestry, he was a good-looking animal and there was nothing of the mongrel in his spirit. The wound that had slashed his ribs had aroused him to a fury of reprisal, each bark that shook him and seemed to jerk him stiff-legged off the ground was a challenge to the great brute that crouched above him, savage yet hesitant to join issue, despite the first blood it had scored.

"A painter," cried Miles. "Come off there, Tige, he'll kill ye sure. Gosh, it's a whacker! Tige, come here I tell you!"

The cougar turned its flattened head towards Miles and snarled with a spitting sound, the noise of an angry cat twenty times magnified. Miles felt a tremor run through him. He had heard many tales of such beasts, called various names by the planters, negroes, and the trappers and hunters that came in from the great plains.

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Puma, panther, cougar, mountain lion—more usually "painter": blood-curdling stories, whispered in the cabins at firelight, of babies carried off by a leaping monster that sprang into the room through open door or window and vanished with its prey; men struck down as they passed along the wooded trails, fearful howlings heard at midnight that iced the blood; green eyes like lamps of evil beyond the rings of campfires. "Painters" could see through anything, said the gossips; they could kill a horse at a stroke and carry it off, slung over one great-muscled shoulder.

Miles did not discount these yarns. Safe in company, he reveled in the shivers they gave him and believed them to the full. To see the brute within leaping distance was a different thing. But he held his ground until he could get Tige away. But Tige's fighting blood was up. He recked nothing of handicaps of size, of fangs and talons. He had been wounded and he wanted reprisal. He had chased the beast up the tree; in his gallant heart he believed it cowardly. Into each full-lunged bark he put the deadliest insults his doggish mind could conceive and utter, hurling them at the cattish thing against which every atom of him quivered with ancient enmities.

It was too far for a shout to reach Peirson at the cabin. The planter had a rifle but Miles would not leave Tige for fear he would find him dead when he got back. He could see the great talons set into the bark. They would rip Tige up as Miles sometimes gutted a fish. Yet his presence was working up the panther to action. It wanted to get out of that tree. It had been treed by a dog or dogs before. Then a man had come up with a stick that spat flame. Its skull was furrowed by a bullet from that encounter. It had nearly stunned him. Escape had only been made because of the dusk in which it happened. It had killed two of the dogs after the impact of the bullet had knocked it from the bough and then it had gone leaping off into the dense brush while the man, furious at the dark and the loss of his hounds, had reluctantly called them off.

The panther was not really afraid of the dog, not afraid of its short teeth and dull claws, though Tige's bravery affected it as Tige's insults were quite understood by him. It was the dog's ally, man, he feared.

The brute shifted lightning glances from dog to boy, calculating chances. Here was a small man, a cub-man who had a sort of stick in one hand but he did not raise it for the spouting flame and the flying missile. Perhaps . . . ? It sensed a certain fear in Miles' voice, not understanding that it was based on alarm for the dog as much as for the dog's master. And Tige was saying things that could not be borne, taunts and jeers. The dog leaped so high that once the *puma* swept down a scythelike paw that barely missed Tige's muzzle.

"Come out of that, Tige, will ye?" The cub-man was plainly alarmed. But another full-sized man might come up with a firestick. There were getting to be altogether too many of these two-legged creatures about, clearing off the woods, destroying food, driving it away to the wilderness. The puma's supple muscles hardened in their sheaths. A particularly virulent insult from Tige swept away all discretion. It leaped—a dirty yellow streak—striking with armed forepaws, hindlegs drawn up ready to rend, fangs eager to tear, full on the valorous Tige. Dog and panther rolled over in a cloud of dust from which came snarls and growls. Tige had his teeth set in the beast's tough hide at the side of the neck. The panther could not bite him but its front claws were busy, ripping through the dog's coat, striving for its vitals. Tige could not withstand the superior weight and strength. The panther whirled atop, Tige clinging, bleeding, game to the end.

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Then Miles rushed in, hoe aloft. The heavy blade descended with all his power, doubled by the desperate need. The edge was dull but it hacked into the panther's shoulder, bluntly sheering flesh and muscle so that the brute fell on its side and, as it did so, struck Tige a frightful blow that hurled him ten feet away, one leg crippled, his flayed side pouring blood.

Miles' next blow missed as the panther spun about, maddened with the wound, eyes blazing, coughing up roars foul with stinking breath and, regardless of its injured shoulder, couched for the leap at the boy. Miles swung up his hoe again, his heart pounding, his breath coming in sobs from passion and the knowledge that his weapon would be worth no more than a twig against that frightful charge. He saw Tige dragging himself back to the fight, he saw the dirty white of the brute's belly as it rose, enormous pads and spreading claws, the yawning mouth. To run was death. To stand . . .

A shot rang out, though he was barely conscious of it at the moment. His brain was too full of imminent death to register it. But he saw the panther's curving leap change in mid-air from horizontal to vertical, as if some leashing cord had checked it. It fell on its back in a flurry of thrashing limbs. A second shot followed and it flattened out, twitching, raising its head in one last effort. Its limbs galloped, faltered and relaxed. A man in a coonskin cap, fringed hunting shirt and leggins of deerhide, moccasins on his feet, bearing a long rifle, stepped out of the row of tobacco nearest the stream, across from Miles, the bleeding dog and the dying panther, and greeted Miles with a flash of white teeth in his sun-tanned, clean-shaven face.

"Right in the nick of time. Yes, sir. And I nicked him cl'ar atween the eyes the first shot. Second split his heart, or close to 't. Was you aimin' to kill him with that weed-grubber, son? You're shore grit, you an' yore dawg. But it was touch an' go, I'm tellin' ye."

The man appeared to be about thirty years of age. He was of only middle stature but his shoulders were broad, his hips narrow and he carried his body with an air that bespoke muscles strong with manhood and strenuous development yet supple as a youth's. His face was almost square from the wide brow to the angles of the jaw, his eyebrows made a straight line above his eyes, wide apart, the upper lids unusually horizontal. The mouth was generous, the chin determined, the distance between the prominent nose and the upper lip more than the average. His hair, brown and inclined to be wavy, hung below his ears. His eyes of gray were the most remarkable feature, kindly, frank and straightforward. His person breathed confidence and spoke of fearlessness. He was apparently a man of reserve but no one a judge of human nature would have passed him by as ordinary. The glance he bestowed upon Miles was full of understanding pity and benevolence.

But Miles was down beside Tige, half crying as he surveyed the terrible condition of his friend, the only friend he had, the only heart that loved him in return. The image of Tige, lacerated and crippled, crawling back to the fight to help his young master, was still plain to the lad. The stranger knelt down beside boy and dog and examined the wounds.

"He ain't so bad but what he might be worse," he said. "With rest and care he'll get well after we've fixed him up a bit. Won't ye, old fighter?" He had touched Tige's injuries with infinite tenderness and skill and the dog reached over its muzzle from Miles' hand to lick the fingers of the man.

"There ain't a chance for him," said Miles. "Peirson never wanted me to have

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him. He'll never let me nurse him. He only let me keep him after I promised to do a lot of extry chores. An' he'll ha'f kill me soon's he sees me."

"What for? Bein' good to a dog like that? I've seen a heap of men I'd trade for a dog like him. Who's Peirson? Yore father?"

"No, sir. He—he owns me, I reckon." Miles looked around fearfully. He knew that Peirson must have heard the shot and would investigate. When he found Miles missing from his work his rage would begin to boil.

"I reckon not, sonny. What's yore own name?"

"Miles. By rights it's Mi-les, but its always been jest Miles. It means a soldier in Latin."

"Does it now? Get me some more water in a dock leaf." As he talked the man staunched Tige's wounds. "We'll get some yarbs I know of," he said, "and heal him up proper. He'll be stiff for a bit but we'll fix him. Means a soldier, eh? Want to be a soldier?"

"I'd rather be a hunter and go out west," said Miles.

The answer evidently pleased the stranger.

"Thar's worse lives, sonny. What's yore second name?"

"I ain't got any, that I know of. They call me Mississippi Miles because I was found on the roof of a shack floatin' down the river after a flood. I was tied to the chimney, they say. Some flatboatmen got me. I was about four then. I remember a big man with a beard who fell off the roof in the night after he'd tied me on an' kissed me. He was my father I reckon. I don't remember his name. An' my mother must hav' died when I was a baby, I guess, because I don't remember her at all. The boss-boatman's wife took care of me.

"Then Peirson came along when I was ten. He told the boatman he needed a boy at his shack and he paid the boatman some money for me. I saw him. You—you don't think he owns me, then, mister?"

"Not by a jugful, sonny. We don't buy and sell whites in this country. Some day mebbe we won't even buy an' sell blacks. You've had a tough time of it with this Peirson, I reckon. Went to school a bit, did ye?"

"Till I was twelve. Then he said I'd had enough schoolin'. The woman on the boat taught me some. I can write an' spell pritty good, an' cipher some. I'm pritty good at readin' when I can git somethin' to read."

"Are ye now? Wal, that's prime. How old are you? 'Bout fifteen?"

"Fourteen, nigh as I can guess. Don't know for sure because I don't know jest when I was born—or where." Miles liked this man. So did Tige and that went a long way with Miles. A shout interrupted them. Across the stream stood Peirson, bull-necked, powerful, with his black beard running down to where the hair was matted on his chest, exposed by his open shirt. His dark eyes flashed at the scene as he strode through the stream, a bullwhip in one hand.

"What in time's this?" he demanded, looking at the dead puma but ignoring the stranger. He laughed as he surveyed Tige.

"The cur got his, did he? Sarves him right fer not 'tendin' to his bizness. What you come out of the rows fer? You'll finish 'em, if you hav' to work with a lantern 'till midnight. I'll give you somethin' to keep ye awake an' teach ye to stay with yore job," he added, swinging up the whip. Miles stood still, his blue eyes challenging those of the man. He knew he could not fight against him, he knew the terrible sting and weal of that whip, but he was not going to show fear or cry out—not Miles, the soldier, who was going to be a hunter

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some day. But he wished, with a longing that showed in his look, that he was only a little bigger, a little stronger. Peirson, whip still uplifted, paused in his punishment to make it more bitter, turning towards the crippled dog, raising one foot. Tige, helpless, bared his teeth and snarled.

"Growl at me, will ye, you cur? I'll . . . "

Miles jumped in between, eyes blazing, fists clenched, jaw out-thrust.

"Don't you tech him!" he cried. "You can lick me but—if you tech Tige—I'll kill ye."

There was a menace in his voice that meant business, interpreting his will. If Peirson hurt the wounded dog Miles silently vowed that he would get a knife and somehow avenge him. He was beside himself with sense of wrong. Peirson grabbed him by one shoulder.

"I'll cut you to ribbons," he said.

"I wouldn't, ef I were you, pardner," said the stranger. "The dog tackled a painter. He's plumb game. So's the boy. He tackled the critter with that hoe. Landed him a good one. It don't do no manner of good to punish gameness, pardner." The tone was mild but it held something that promised help to Miles, even to Tige, whose eyes gleamed upwards, but it infuriated Peirson. He wheeled on the other with a volley of dirty oaths. The stranger's face hardened, his eyes grew steely. With almost unbelievable swiftness and agile strength he caught Peirson's great wrist, twisted away the whip and flung it behind him.

"I aim to be peaceable, as a rule," he drawled while Miles watched his champion, open-eyed and admiring, "but thar's a few words I bar. I figger for you to take 'em back."

Peirson, rubbing his wrist, gazing for the whip, his face dark with passion, seemed to sense vaguely the power back of the man and his words.

"Who are you to come buttin' in?" he demanded.

"Name of Kit Carson," said the other quietly enough. The effect on Peirson was instantaneous. He forced the anger from his face and pose even as he seemed to shrink in stature, almost to cringe.

"Kit—Kit Carson?" he stammered while Miles gasped. Carson of Missouri had been away for years but the fame of him had come out of the west. Mighty hunter, Indian defier, dead-shot, fearless scout and unrivaled trapper, his name was spoken of the length of the great river with a certain reverence even by the river-bullies, drunk or sober. To Miles he was more than man, a demi-god, a paragon of the virtues. He knew, listening to the tales, as all knew, that Carson never lied, never boasted, never picked a quarrel, and never missed a shot.

"Gee!" he muttered, taking Peirson's sudden change for granted in the presence of his hero. "Kit Carson!"

"I reckon I was a bit hasty," said Peirson. "But the weeds is somethin' awful, an' that dawg ain't no manner of use. Eats as much as a man an' don't do a lick."

"I wish I owned him," said Carson.

A thought came to Miles that he wrestled with. The contemplation of his renunciation battled hard with his desire to reward his hero. But, though he swallowed, there was a choke in his voice when he said,

"You—you—all can have him, when he's cured, Mister Kit Carson."

"Now that's plumb generous," answered Carson. "But I don't aim to separate you two. You make too good a team. I'm on my way to St. Louis. Come down from Bent's Fort on the Arkansas. Went out of my road a bit to see the old place in

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Missoury where I was a kid. Seventeen years ago now. An' then made for the river down this way to look up an old friend. That's how I happened on the dawg and the boy here tacklin' that painter. I took a hand an' plugged the varmint. You might like his hide, Mister Peirson, though by rights it belongs to the boy.

"He can have it if he wants it," said the changed Peirson, to Miles' astonishment. "You'll come over to the shack, won't ye?"

Carson looked at Miles and there was a twinkle in his eyes that answered the lad's appeal. Even as the thought of Carson accepting the hospitality of the cabin appealed to him, he was shrewd enough to know that Peirson equally desired it. To be able to say that Kit Carson had been entertained by him, to claim that the famous scout was his friend, would be a feather in Peirson's cap quite of his own choosing. The planter was a boaster. Miles feared that Carson read Pierson's character and would refuse. He did not realize that his own eyes and the condition of the dog effectually backed the invitation.

"That sounds interestin'," said the scout. "I want to fix up the dog a bit before I go. He's got honorable wounds an' they should be attended to, to my notion."

Peirson looked at the dog non-committally. Miles sensed the tact with which Carson handled the situation in behalf of himself and Tige. The boy's heart warmed.

"You cut back to the shack an' bring the wheelbarrer," said Peirson. "You kin tote him back in that."

Miles shot off. He did not diagnose the change in Peirson. Carson accounted for that. His was a name to conjure with. In person he could accomplish far greater miracles than taming Peirson's brutality. Miles was sure of that.

When he got back, the bottom of the barrow lined with old sacks, he found the two men in friendly conversation. Carson had deftly flayed the carcass of the *puma*.

"Skin's yours, son," said the scout. "Your'n an' the dawg's. You can tan it an' give it to him to lie on. That'll even matters. I'll show you how to make a hoop-stretcher before I go. Scrape off all the fat with a blunt knife over a round log that's got the bark off. Dress it tawed with the ha'r on. Rub in the brains—an' keep rubbin', that's the secret. Rub till it's all pliable an' then sprinkle on a little alum an' saltpeter to keep the bugs out. Can you heft the dawg by yourself?"

The twinkle in Carson's eyes deepened after Miles, with infinite care, had placed Tige on the sacks. He turned to Peirson.

"Can't trundle him through the bed of the crick. Shake him up too much. Git hold of the handles, Peirson, an' I'll take the front end. Then Miles here can wheel him home."

Peirson did so without comment. It was hard work shoving the heavy barrow and its load through the soft dirt but Miles accomplished it. In the clearing where the log-cabin stood, Carson stooped several times gathering leaves. These he displayed to Miles.

"Keep one of each so you'll know 'em again," he said. "Pound the rest up to a pulp an' make a poultice of it for his side an' leg. The torn muscle's the worst part but he'll heal clean an' be up an' around inside of a week. Dawgs mend quicker than humans."

He followed Miles into the lean-to that was the boy's bedroom and helped to establish Tige on his bed in the corner. His kindness towards a dumb creature seemed a natural enough attribute of his hero but the lad marveled at it none the less.

"He won't eat much for a spell," said

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Carson. "But see he gets all the water he wants."

"When you git through with the dawg," said Peirson who had stood in the doorway surveying the operations, "you skid out an' git a fryin' chicken. I'll say one thing for the kid," he went on to Carson, "he sure can cook. You'll stay for a bite—mebbe for the night? It's gettin' on towards dark."

"I'll have some of that chicken, anyway. Depends on my steamer 'bout stayin' over. I've got a daughter in St. Louis, a little younger 'n Miles. I'm placin' her in school. That's what I come back for, mainly."

"I could drive ye over to Lane's Landing termorrer," said Peirson eagerly. "The Saint Louis steamer's due at five in the afternoon. We could make it easy. I've got a good mare."

"Well," said Carson, "we'll settle it after supper."

After supper, with the chicken fried by Miles and praised by Kit Carson, the scout stayed on, telling tales of his western life. Nothing had been said about the unfinished weeding and Miles, sure that Tige was comfortable and content not to tear off the bandage that kept the styptic herbs in place, made himself small and quiet as possible and listened until Peirson remembered him and sent him off to bed.

Even then he couldn't sleep. The door from the main room to the lean-to did not fit closely and he could catch murmurs of the talk going on, though, for the most part, his head was too crammed with what had been said to think of or notice much else.

For he had heard about the trading post of Santa Fe in New Mexico and of Fernandez de Taos, where Carson had traded, of adventures in El Paso and Chihuahua, strange names of strange places and customs, of Indian raids on the Gila River, of beaver-trapping, of the trip to far off California, descriptions of the Mojave Indians, of the missions of San Gabriel and San Fernando where the monks dwelt among the savages and welcomed Carson and his companions; of the Sacramento and Tlamath rivers and the fierce tribes of the northern Pacific Ocean landfall, wonders piled on wonders, spoken of with a simplicity and frankness that brought all vividly to the gaping Peirson and the enraptured boy, always with a modesty that still left Carson's sterling qualities revealed.

Los Angeles and Taos again, then north to rivers bearing more familiar titles, the Green, the Platte, the Red, the upper reaches of the Arkansas and the Missouri. Indian tribes of Blackfeet and Sioux, Snake and Arapahoe, of Carson's wounding by a Blackfoot whom he shot through the heart, of Buffalo and war-dances and councils, perils and escapes!

Of his duel with Shuman, the famous bully, who insulted all Americans until, Carson's pistol against the other's rifle, they fought on horseback and Carson shattered the bully's arm, Peirson could not persuade the scout to talk, but they had heard that tale with others that had come back by the roaming *couriers du bois* and trappers.

But he spoke of the deep canyons of the Yellowstone and the Colorado, mighty torrents, mud-lakes, spouting springs. Of the great fight on Wind River where Carson, at the head of forty intrepid men, worsted several hundred Blackfeet, his ancient enemies. Of the Flathead Chinook Indians of the mighty Columbia River who placed their children in a wooden trough and bound about their foreheads with cords to secure their distinguishing deformity. Of Comanches, Utahs and Cheyennes, peace-compacts and pipe-parleys!

Never had such an Odyssey been told by

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its own Ulysses to a boy, whose ardor flamed to follow in emulation of this man who was called by the tribes that he had fought and conquered, turning many of them to friends, "Monarch of the Prairies," while the press styled him "Nestor of the Rocky Mountains" and often wrote of his exploits.

It was an age when big men rose amid the dangers and difficulties of the spirit of exploration that was rife in America. Kit Carson symbolized what most men wished themselves to be, daring yet wise, a genius for encountering the wilderness, the spirit of pioneering. Men loved to recount his fame and none were found that did not praise him from California to the Mississippi, through all that vast territory about to be opened up, trailed already by such men. His was the high heart and brave spirit of American progress, best type of those who expanded its territory and established its farthest frontiers.

It was small wonder that Miles' head whirled while his heart worshiped. It was the sound of his own name that held him. He could not help but listen.

"He works well enough for a youngster," Peirson was saying, "but I need a man. I've saved a bit an' I could make more if I had a regular hand. I've thought some of buyin' me a slave. There's one over at Lane's Landing I've got my eyes on. Husky an' willin', they say, though I'll look out for him bein' willin', once he's mine. Strong as an ox an' limber as a snake, a natural terbacker stripper. Terbacker's bringin' twenty-two shillin' a hundred now, an' risin'. But I ain't got but half his price."

"You'd let the lad go if you had the black?" asked Carson.

Peirson laughed.

"I'd trade him for a slave any day in the week," he answered.

The voices fell. Miles felt a mingled sense of anger, shame and elation. Carson —what was Carson planning—for him? Could he . . . ?

Followed the chink of money and more low voices. Then Tige whimpered and Miles comforted him. Burrowed close to the wounded dog, he fell asleep.

After he had hitched up the mare to the Dearborn cart the next morning, after Peirson's announcement that he was going to drive Mister Carson over to the landin', Carson called Miles to one side.

"Peirson's goin' to buy a black to do the work here," he said. "He may come on with me to St. Louis to get a better bargain. While he's gone he looks to you to keep down the weeds. He's got to have some one to look after the crop, you see. And you'll have time to get the dawg on his feet again. Otherwise I might take you along with me, if you wanted to go?"

Miles couldn't take this all in at once. The infinite joy of it was too much for instant comprehension. But, as it dawned, his face was filled with a radiance at which Carson smiled.

"You'll take me along with you?" Miles asked.

"Soon as Peirson gets back with his black he'll ship you off to me at St. Louis. You said you wanted to be a hunter, didn't you? I figger you've got the makin's of one in ye. You see, Miles, I was prenticed to a saddler when I was fifteen and I hated it, jest as much as you hate hoein'. So I know how you feel. I lit out for myself. An' I've got a girl nigh yore age. If she'd bin a boy I'd have wanted her to be a frontiersman. I like yore spirit. I'll put you in the way of bein' what you want. It's up to you. You're handy. If you'd l'arn to see a lot an' say little, excep' to ask not too many questions, an' kept on tryin' to do whatever thar was to do, why, I wouldn't wonder but what a trapping or hunting outfit would be glad to have you around."

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Miles' throat had choked up with happiness and there was water in his eyes that he tried to blink back. Carson smiled at him with nods of his head that told Miles he understood. Then the boy found his voice.

"I'll pay you back some day," he said. "I mean what you loaned Peirson to buy his slave."

"Quick ears, eh?"

"I couldn't help hearin' that."

"I didn't loan him much, son. That's why we're goin' on to St. Louis, since you know so much. I can arrange a loan for him there on his plantation. You can pay me back as soon as you like but it only meant a few furs. Now, we're ready to start."

But Miles had one more question.

"Shall I be with you?"

"I don't know what my plans are, Miles. But I reckon we can fix it that way. You keep those herbs moist on Tige."

"Oh, how about Tige? I'd forgotten." Miles' face fell.

"I hadn't. A smart dawg can be trained. And a well-trained dawg is a mighty useful critter, at home or on the march. If you can fix up Tige so's he can travel, I reckon you can bring him along."

All that day was rose-colored to Miles. He worked hard but the hoe seemed lighter than a switch and the rows were weeded like magic. He told Tige about it all a dozen times, he recounted to him what he could remember of the wonderful stories of the night before and, when at last he slept and dreamed, his visions were bright and wonderful.

Yet none of them approached the reality that lay before him. Mississippi Miles was destined to tread wild trails and encounter strange adventures. The friendship of the Great Master Scout had plucked him from the humble toil in the plantation rows to set his feet upon the road to High Adventure.

Pal Pup

By Frank Rigney

A regular little tenderfoot,
This fat and funny pup,
Chock full of scouting instincts,
Where does he pick them up?

He hides a bone—he's Thrifty,
Obedient too, and Brave,
Hiking, Stalking, Swimming,
In days to come he'll crave.

With stumpy tail wig-wagging
To all he calls "Oh joy!"
Cheerful? Yes (unto the end),
A Loyal friend? Oh Boy!

Yep, he's strong for out-of-doors,
Tough weather brings no doubts,
Prepared for all—well, anyway,
Most dogs are regular scouts.

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Lost Americans

By Badger Clark

Illustrated by Remington Schuyler

"ARIZONA may be a great country," said Howard, reining his pony carefully through a patch of mesquit to save his knees from contact with the long, keen thorns. "But the trouble is that there is nothing here but country—just hot blue sky above and a lot of empty room underneath."

Jim, Arizona born and ranch bred, had learned to take criticisms of his beloved state from his visiting Boston cousin with perfect good nature.

"Well," he replied simply, "what more would you want?"

"I should want some history," said Howard. "Here are these mountains, if you can call such bare rock-piles mountains. What has ever happened on them to make them worth looking at? Here's this sand flat, stretching away to that strip of white alkali, and then on across to those other mountains that look like pasteboard scenery on the stage. Nobody ever lived here; no army ever fought here; nothing ever happened here, or ever could——"

"'K out!" shouted Jim suddenly. "Snake!"

With a hot sizzle of anger, a large, dusty rattlesnake raised his head almost under Howard's horse and that animal, perfectly understanding the sound, leaped aside so violently that his rider had to "grab for leather" in all haste to keep his seat.

"If Pancho had spilled you off on top of that snake, something would have happened for once, even in Arizona," said Jim, grinning.

"Oh, have your cowpuncher laugh at my horsemanship," said the Boston boy, a little ruffled, "but don't let the snake get away. Kill the thing with your shovel."

The boys had been resetting a few fence-posts at a distant pasture of the ranch and Jim was carrying a long handled shovel across the saddle in front of him. Without dismounting, he now raised the shovel above his head and threw it like a javelin, cutting the snake in two.

"Want the rattle?" he inquired, as he swung out of the saddle.

"Might as well," answered Howard. "It will be a trophy of the only event that has ever occurred in this township, probably. Glorious West! Why, Jim, we may be the first human beings that have ever looked upon this patch of sand and mesquit. You see, this country doesn't *mean* anything, for nothing has ever happened here."

"How about the Spanish explorers?" said Jim, tossing the rattle up to his cousin and then leaning against the shoulder of his horse with an air of determination to thrash the subject out on the spot.

"They came, and they went," rejoined Howard. "They crawled over the desert and swore long Spanish oaths at the heat and the thirst and the rattlesnakes and the emptiness. They are the only interesting

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people in your records, and they got out of here as fast as they could, leaving hardly a mark. History never really touched this desert; it hopped over it. Where is your Lexington? Where is your Bunker Hill? Give me old New England, where men have lived and died. This is just the Land Where Nothing Ever Happened."

Jim did not reply for a moment, but stood with his thumb hooked in his belt, staring at the mouth of a dry, rocky canyon which opened upon the plain a few hundred yards away. Finally he pointed toward the canyon.

"Do you see that?" he asked.

"What?" said Howard, puzzled by his manner.

"That bank of dirt and rock running part way across the mouth of the canyon."

"Well, what of it?"

"Tell me who built it."

"Why, the action of water, I suppose," said the Boston boy, "the same thing that shaped most hills. It is just a natural bank of dirt."

"You're wrong," said Jim. "It was built by men's hands. What you just called a bank of dirt is a dam."

Howard laughed. "Now you're dreaming," he argued. "That little canyon never carried anything but an occasional trickle of rain-water. Besides, look at that tremendous big juniper stump on the side of the bank. The tree belonging to that stump must have been growing long before a white man ever showed his face here, and the dam, as you call it, was here before Columbus ever made his bow to Queen Isabella."

"I know it," said Jim stoutly. "I reckon the people who built that dam held a grand ball to celebrate its completion long before Julius Caesar ever wrote those blessed Commentaries of his. It hasn't anything to do with the Reclamation Service, but it's a dam, just the same. Now look here. Do you see this little hump, or wave, in the sand? It's so low that you would ride over it without noticing but, once you see it, it's easy to follow. Let's follow it."

Jim started off, leading his horse, and Howard rode after him, skeptical, but considerably interested. The hardly perceptible bank, about three feet across and rising no more than a few inches above the general surface, led them about forty feet to the eastward, then turned at a perfect right angle and ran some sixty feet to the south where it turned again in the same precise way and finally brought them back to their starting point after they traveled the four sides of a rectangle.

"What do you call that, old Boston?" said Jim exultantly. "Is it the action of water, or the track of a crazy thunderbolt?"

"Why, it doesn't look like a natural formation at all," acknowledged Howard, sliding out of his saddle with a new eagerness and looking about him. "Somebody has been amusing himself here with a shovel a long time ago, like children building sand forts on the beach. Look over there. There's another. And there's another off to the right. How many of these queer squares are there around here, anyway?"

"They spread down this flat for about a quarter of a mile," drawled Jim.

"But what are they?" said the Boston boy.

"They are what is left of houses," replied his western cousin coolly.

"Houses," smiled Howard, looking off across the barren surface of the sand flat where the heat waves danced and rippled dizzily. "Houses! Here? Come, no lunatic would ever build a house in such a place, to say nothing of a whole town. There must be some other explanation."

"Well, the best way to get the answer is to dig it out, I reckon," said Jim. "You

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have the bar and I have the shovel. Just imagine this is in Egypt and we'll play archaeology awhile. Now, professor, if you will apply your bar to the ancient soil in this corner of the ruins, I will supplement your labors with the implement in my possession and we may uncover something of vast interest to the scientific world."

Too much interested even to grin at Jim's pompous burlesque, Howard went vigorously to work with his bar and soon had a space three feet square mellow enough for the shovel, and stood aside, panting. Jim tossed out the loose dirt to the depth of his shovel blade and then, after carefully pecking and scraping about the outer corner of the hole for a moment, stooped down and said, "Look here." Howard stooped and stared as if fascinated.

"Natural formation, I reckon," said Jim.

"Oh, you needn't rub it in," said his cousin. "I give up. You're the professor and I'm your class from now on. That is an angle of adobe wall, as perfect as if it had been laid last week. Now please explain, sir."

"We'll go to the bottom of the matter, my son," said Jim, thoroughly enjoying himself; and he began shoveling with such hearty good will that Howard backed away out of the cloud of dust that rose in the hot, still air of the desert afternoon.

"Attention, primary class in archaeology," said the excavator a few minutes later, stooping and picking up some tiny object from the bottom of the hole. "Please tell me what this is."

"A kernel of corn," exclaimed the other, "and burned to charcoal, which accounts for its preservation."

"Right," said Jim. "And now this."

"Pottery," said Howard with increasing surprise. "Not white man's work, but thinner and finer grained than most Mexican pottery I've seen. Let me get into the hole, professor. This beats books!"

The boys worked carefully and soon began to sift the dirt through their fingers as it was thrown out, finding shards of pottery, charred kernels of corn or pieces of charcoal in every shovel full.

"We've dug smack into the middle of somebody's domestic hearth," said Jim at last. "Look at this. Here's the whole bottom of a broken pot, and in it are some pieces of bone. It was a stew—of venison, I reckon—and it was simmering on the fire when——"

"When what?" asked Howard, as the other paused.

"When that chapter of history closed," went on Jim solemnly, "when the thing happened that smashed all this good woman's dishes among the coals and put out the fire. It's a meal that was all ready to serve long, long ago, but nobody ever got a chance to eat it."

He stopped speaking and they sat silent, with their feet in the bottom of the hole, Howard turning the broken pot curiously in his fingers, while Jim gazed thoughtfully across the desert, hot and white, in the sunlight.

"What do you see, Professor?" said Howard presently.

"I'm seeing—things," said Jim musingly. "I always do get to dreaming in a place of this sort, and there are several of them in this part of the range. Jab the spurs into your imagination and go with me back a way. Here is a town of several thousand people around us, not wandering savages like most of our Indians used to be, but real folks with fields and homes and a civilization. It is easy to see it all. There is running water in that canyon, damned and ditched for irrigation as well as any modern engineer could do it, and all around the town are waving fields of corn. Here we sit at the edge of the street,

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a street without horses or wagons, and we are watching the folks go by. The children are playing around and chasing each other in and out of the doors of the big 'dobe houses. Over there is a woman leaning against the doorpost, waiting for her man to come home from the corn-fields, holding a baby on her arm and making it laugh by dangling her necklace of turquoise beads just out of its reach. In the shade of the house two girls are grinding corn in a metate. Farmers are drifting in, hungry, from the fields, and sniffing the boiling meat and baking corn cakes as they pass the doorways. There goes a priest, wearing a lot of holy jewelry and an expensive feathercloth serape. Here comes a hunter from the hills, with his bow in his hand and a fawn over his shoulder. The whole town is getting an early supper so they can be ready for the big harvest dance to-night, for the corn is ripe. Do you see it?"

"As clearly as I see you," said Howard wonderingly. "Go on with your vision, old seer."

"It is an old town," continued Jim. "Fathers are buried here, and grandfathers, and great-grandfathers. Three miles down this range of hills is another town like it. Across the valley, there, in the foothills of the Chiricahuas, are more towns; you can see the green patches of their corn-fields from here. The people are proud of their towns and fond of their country. They have religion and politics to argue about when they get tired of talking crops and hunting. And they have a history. There is a Bunker Hill in it, when they fought a big fight against outsiders. There is a Gettysburg, when they had a grand battle among themselves. Perhaps, one time, they sent an expeditionary force over beyond the Rio Grande and fought a Château Thierry with a bunch of domineering, red Huns that threatened them. They know that they are the finest people on earth and that their country is the finest country, and they expect their children and their children's children to hold this land and keep up the name of the nation until the sun and moon flicker and go out. They are a whole lot like the Americans to-day in some respects," concluded Jim, smiling at the absorbed face of his cousin.

"But what is the end of the story?" said Howard. "There is an end of some sort. The towns are gone, the fields are gone, and this is an open desert flat with nothing on it but a few thin mesquit bushes, and the whole country can support only a few scattered ranches. Tell me the end of your vision."

"The Southwest is full of signs of old volcanic action," said Jim. "Over in New Mexico great tracts are covered with lava and volcanic ashes, and they tell me that the ants coming up through these ancient ash heaps sometimes carry—what, do you think?"

"Ants usually bring up grains of sand," said Howard.

"Beads," said Jim, "man-made beads, and folks dig down through the ant-hills and the ashes and find pottery like this underneath. Can't you guess what ended the chapter of history that these friends of ours figured in?"

"Volcano and earthquake," breathed Howard. "What a smash! What a day that must have been!"

"Yes, it seems to me that this little hole right here tells the story," resumed Jim. "The woman of this house has supper on the fire, a stew, cakes and some whole corn —roasting ears, maybe—and all over town the men are coming home and sitting around waiting for meal-time, and the children are getting under their mothers' feet and begging for just a teenty-weenty bit off the brown edge of the hoecake to keep them alive until supper's ready. The sky is clear and the sun hangs a little above the

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mountains, as you see it at this minute, and everything is exactly as it has been for ten thousand evenings before. Then—it happens! Maybe there is a rumble and a shiver that gives the folks a chance to rush out of the houses; maybe not. Anyway, the whole country heaves and shakes itself. Big seams split the fields and the streams are gulped down into the earth, boulders come loping and smashing down the sides of the hills. And the houses—ay, chico! how these tall 'dobe walls crumple and crash, and people scream and run here and there through the clouds of dust! Then a horrible night comes down on those left alive, a black night when the wind is full of flying dust and ashes and a suffocating smell of sulphurous gas, and the ground slides and jerks underfoot, and the sky is red around the edges with the reflection of spouting lava beyond the quivering mountains. The people stumble around their wrecked houses looking for the ones that were caught by the falling walls, or cling together in little scared bunches and cry and pray to their gods. It is the Judgment Day, come ages ahead of its time. Can't you just see the whole thing?"

"Don't stop!" pleaded Howard. "Finish the vision while the inspiration is upon you. What became of the survivors?"

"Quien sabe?" said Jim. "Only one thing is clear—they went away somewhere. The earthquakes must have dried a good many streams at their source, and killed the irrigation systems, as in this case right here. The children of Israel were not the only nation that ever picked up its traps and moved all in a bunch. Do you remember, the Aztecs in the time of Cortez had a tradition that they had come from the north in a great migration? Who were the Mayas and the Toltecs in Central America? The Apaches probably drifted into this country after the great earthquake, and there have always been a handful of pueblo tribes, but these folks," said Jim, looking reflectively down into the hole at his feet, "these folks—who knows?"

"One thing more, old sage," said Howard. "Give all this a date. When did it happen?"

Jim shrugged his shoulders and spread his hands like a Mexican.

"Quien sabe?" he repeated. "Do you want me to get into trouble with the wise men at Washington? But geologists set the date of these volcanic disturbances away back. That's what makes these ruins such fine things to dream over. Old, old, old they are—that's all. Maybe the day when these 'dobe walls thundered down and spoiled the good woman's supper was back before the time of Abraham. Perhaps on that very day our noble, fair-skinned ancestors in central Europe were sneaking around through the woods, gnawing bones and sticking each other in the back with copper knives. It was still a long, long way to Plymouth Rock, proud Yankee. But, speaking of suppers," he said, rising. "I'll bet our supper is ready, and it is a good two miles away. And while we are here, dreaming about prehistoric Americans, mother at the ranch is dreaming that something horrible has happened to us, like all mothers do when a fellow is ten minutes late to a meal. Vamos, amigo mio."

They mounted their horses and rode off toward the ranch in silence, and then presently——

"Say," said Howard. "I want to beg your pardon, and also Madame Arizona's. Between the two of you, you've given me a great lesson in history this afternoon. Why, this country is fairly saturated with history. It almost equals the Old Bay State."

"That's a stunning compliment, coming from a Bostonese," grinned Jim. "I thank

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you for myself and for Señora Arizona."

"But, Jim," said Howard earnestly, "isn't it a great country, this old U. S. A. of ours? The more I see of it, the more I admire every square mile of it."

"It's THE country," said Jim. "Up and down and around and across and forward and backward, there is no country equal to it. We white folks from Europe who drove our stakes in it day before yesterday are just beginning to get acquainted with it."

"And its history," murmured Howard.

"The shortest part of its history is the part that we have made and put in books," said Jim.

Tramp, Tramp, Tramp!

By Berton Braley

In the heart of ev'ry Scout there is honor for the flag,
And a tho't of all its glory of the past,
And each Scout has made a vow that his faith will never lag,
He will serve that starry banner to the last.

Chorus:

Tramp, tramp, tramp, the Scouts are marching!
Under smiling skies above;
By the red and white and blue
We will hold forever true
To the glory of the country that we love!

In our work or in our play, in the city or the glen,
We are building up the body and the brain;
And we build the spirit, too, which shall make us into men
Who can keep the flag forever without stain.

As we serve the Scouting law, so we serve our mighty land,
And we march along together to the goal,
With our bodies clean and strong, and our minds that understand
And a faith that holds us loyal, heart and soul.

From Boy Scouts Song Book, copyright, C. C. Birchard and Company.

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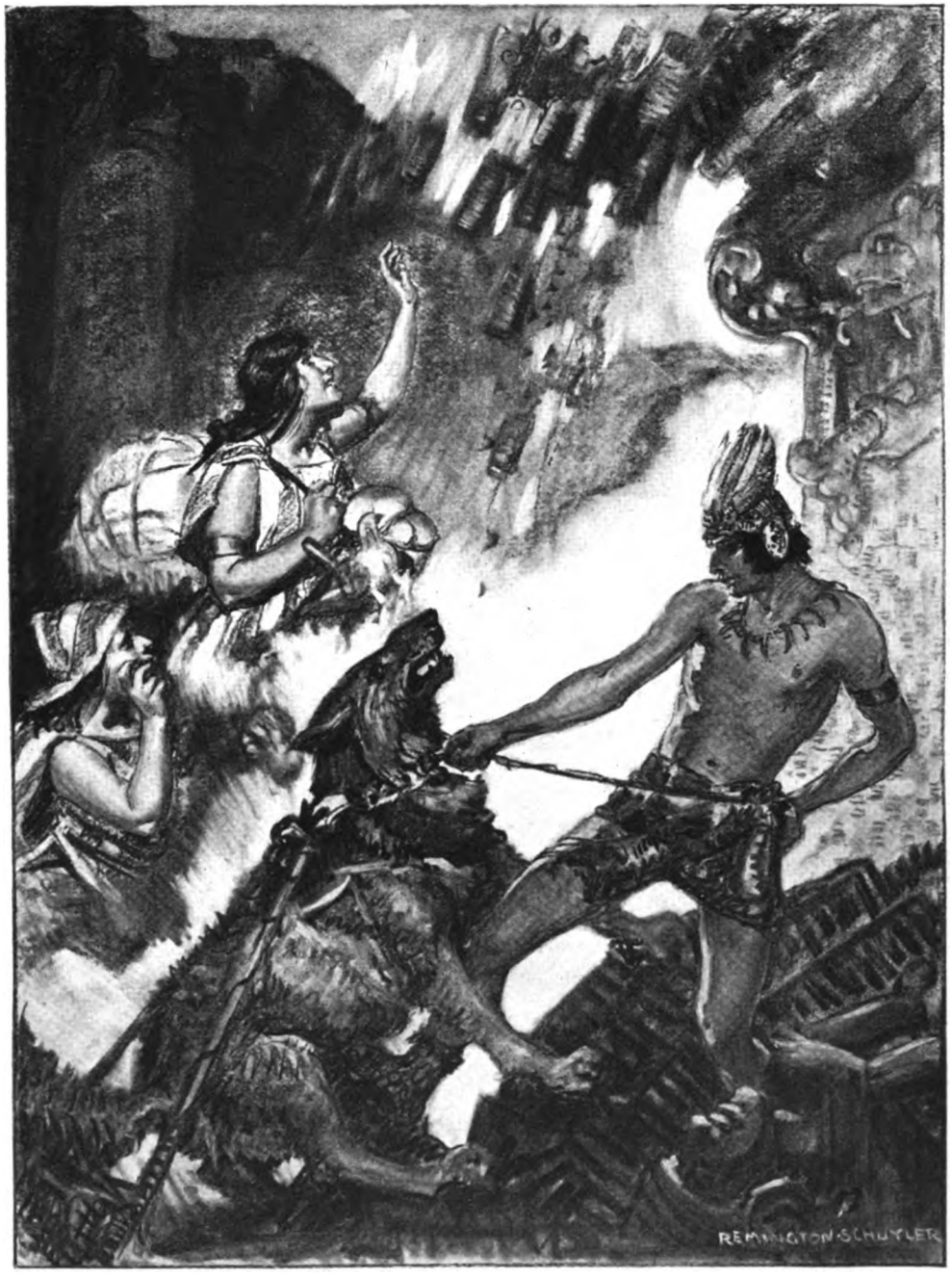

" How these tall 'dobe walls crumple and crash, and people scream and run here and there through the clouds of dust! "

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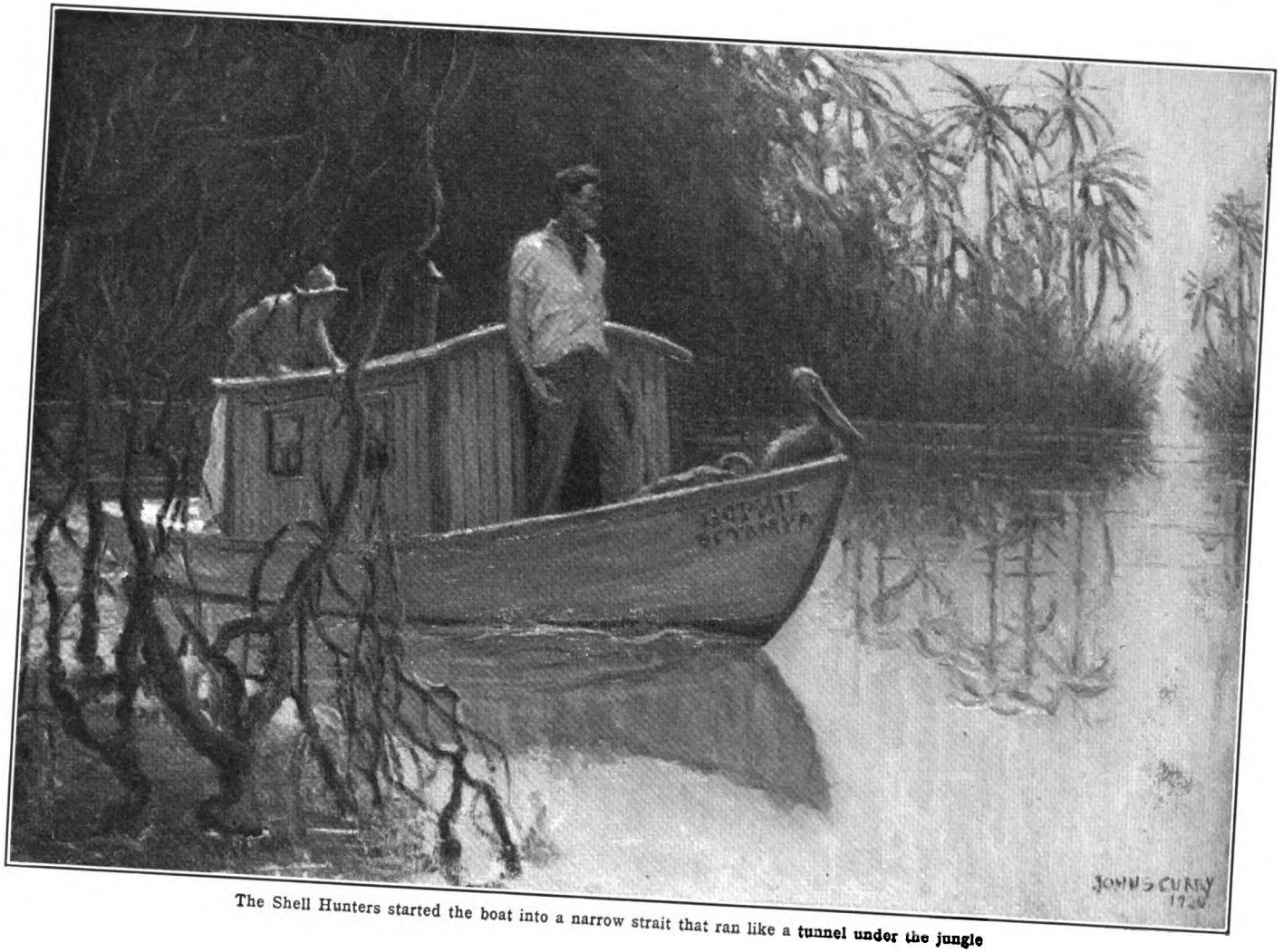

The Shell Hunters started the boat into a narrow strait that ran like a **tunnel under the jungle**

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Old Man of Tampa Bay

By James Ravenscroft

Illustrated by John S. Curry

PLUNGE after plunge the pelican made, but always without a catch. The Shell Hunters fell to speculating as to the cause of the bird's bad luck.

"He flies so low and is so slow he can't put any punch into his plunge," was Roddy Bates' observation.

"Why doesn't he fly higher and speed up then?" said Skid Arlow. "He ought to know the fishing game—he's been in it all his life."

"I noticed him yesterday," Roddy went on, "and he never got a fish while I was looking at him. He hangs around the piers here all the time, watching for fish that is thrown out of the fish boats. I wonder what *is* the matter with him."

The pelican flapped around awhile, and then, with a weary droop of wings, dropped into the water not far from the Shell Hunters' boat.

"Let's see if he's full up and is just doing stunts to keep his hand—I mean his bill—in, or whether he's playing in hard luck and is hungry," Skid proposed. "We've had luck this morning and it's up to us to help a fellow fisherman along if he needs it."

Skid took a small fish from the gunny sack in which they carried them and threw it toward the pelican. The bird did not see the fish in the air at all, and when it struck the water he lifted his head and looked about in an excited, half-bewildered manner, but before he located it another pelican, that from 200 yards away had glimpsed it as it was thrown, sailed down and scooped it up.

The Shell Hunters guessed the trouble at once.

"Do you know what's the matter with that bird? He can't see good," Roddy declared.

"That's it," Skid said. "And the reason he can't see good and is slow is he's getting old. That's why he hangs around the fish boats all day. Wonder what becomes of pelicans when they get too old to fish."

"I never thought of that," Roddy answered, speculatively. "I never have heard anybody say, and I've never read it anywhere. I wonder! I suppose they just sit down on a sandbar and slowly starve to death. Or maybe they just float calmly and grimly out to sea and a shark or something eats them. Tragic, isn't it?"

Skid nodded, and, taking out another fish, threw it so near the pelican that he had no trouble seeing it; and his awkward haste in seizing it left no doubt that he was in a hard plight and very hungry.

The Shell Hunters looked at each other, and each read the other's thought.

"Let's take him on," Roddy proposed.

"It's a go," Skid responded. "We need a mascot, anyway. Maybe he'll bring us some luck in shell combin'."

Work of making up to the pelican began then and there, and continued every day. The making up was tedious. For two weeks the old bird, while obviously

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watching for the Shell Hunters, and flapping as fast as he could to meet them as soon as he saw them, kept distrustingly distant while he gulped their fish into his pouch, and blinked at them, his eyes seeming very sad and wise, the boys thought.

The Shell Hunters persevered, and by the end of another week the pelican was taking fish out of their hands, and a few days later was riding complacently on their boat, going with them wherever they went. They had a small cabin cruiser on which they voyaged up and down the coast, and the pelican made it his home, roosting on it nightly. Frequently when the Shell Hunters were in port they would stay at a hotel or boarding house, and when they would go to the boat in the morning, as they always did, the first thing, the pelican greeted them by rising as high as he could on his short legs and stretching and flapping his wings; and on the morning he added to his greeting ceremonies a curious, mournful squawk, they considered the friendship pact signed, sealed and delivered.

The Shell Hunters named the pelican Old Man of Tampa Bay, for it was at a resort on the Pinellas side that they found him.

Thrown together by accident one autumn in St. Petersburg, the Shell Hunters had boated, swum, camped and tramped through many absorbing explorations and adventures among the keys, when one day they were straightened up at a stroke with the thought that profit as well as pleasure, and in quite as liberal scope, lay ready for their taking, and they began combing for shells, with which the beaches of many of the keys abounded, and Skid created for them the trade name of *Shell Hunters*. They easily arranged with the proprietor of a resort shell shop to supply him, and from then on there was business method in their adventuring.

They combed all the shell beaches on the near-by keys till the holidays, when, their dealer being stocked for the season, they decided to voyage further south and try their luck. They went to Ft. Myers, taking the close-in route, Old Man pelican, as usual, decorating the boat's bow, as if he were a part of the craft.

Ascertaining that a market for shell could be arranged for there, the Shell Hunters started on a cruise among the keys leading down to the Ten Thousand Islands. They found several fairly good shell beds, and then came the day of their big discovery.

They found the wide, curving, and almost level beach while searching for a place to camp for a day or two where they would not be tormented by insects. Wherever they had been on land that day they had been attacked by sand flies in cloudlike swarms and had been forced to retreat in a run to the cruiser.

It was about mid-afternoon when, after parleying for several minutes as to whether to attempt it, the Shell Hunters started the boat into a narrow strait that ran like a tunnel under the jungle. In places it was overlapped so low with vines and mangrove roots and branches that one of them had to crouch, hatchet in hand, on the bow of the boat, and chop a passage. Parrakeets scolded timidly at them, snake birds squawked, and other fowls, resenting the invasion of their sequestered home, chattered and screeched excitedly. Skid, who was the hatchet man, wiped his face, streaming with sweat, with a naked, streaming arm, and called back to Roddy:

"All that's needed to make this just like darkest Africa, or Borneo, or Zambezi, or some other darkest place, is some monkeys to bark at us and keep us dodging cocoanuts."

"It's darkest enough for me without any of that," Roddy retorted from where he

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was coddling the engine into gasping starts and stops, and in that way doing his best not to ground the boat.

Old Man of Tampa Bay, or Old Man, as they had shortened it, was with them, of course, and was acting as if he was getting younger every minute. There wasn't a place where he could fly as many feet as he measured from wing tip to wing tip, but he kept flapping, blundering into mangrove roots and getting himself ludicrously tangled up with the jungle.

At last he hung fast, and was rescued, at peril of cotton-mouth water moccasins, which appeared to be lurking everywhere. To get Old Man, Roddy had to climb out on a long mangrove root, and in trying to turn around after releasing him, both fell into the water. A big stub-tailed moccasin, which had not been seen, was stretched on a root right by where they struck, but their sudden smash into the water so startled him that instead of showing fight he flung himself from his ambush and disappeared. When Old Man was safely back on the boat Roddy tied him by the leg.

The Shell Hunters fought on for nearly an hour longer, and, when nearly exhausted, they emerged into a lagoon that lay blue and rippling in the deep crescent of an atoll-shaped key. Though the tide was in, they were still some little distance from the water's edge when they had run the boat in as far as they could, so gradually sloping was the beach. They staked the cruiser fast on each side with long, stout stakes, carried for that purpose, which they drove deep into the sand to keep the craft upright at low tide. Then they loosed Old Man and all went overboard and started ashore.

As they neared the white, smooth beach the Shell Hunters shouted together in astonishment. Never had they seen such shells! As they went further they saw that the beach from end to end was one vast bed of shells, marvelous in variety, size and color.

"Here's where we corner the west coast shell market!" Roddy suddenly yelled.

"I wish you'd quit reading my mind!" Skid yelled just as loud. "I had just thought that and was getting ready to say it. Of course we'll corner the shell market. There are enough shells here to keep us busy the rest of the winter. We'll take a specimen load to our Ft. Myers man and just about make our own terms; and then we'll run up cargo after cargo as fast as we can."

"That's the stuff," Roddy agreed. "We'll camp here—and say, not a sand fly in sight, did you notice?—and to-morrow morning we'll cruise around and find out how many ways there are to get in here. Wouldn't it be our luck if there isn't any other way? I may be mistaken, but this looks like a regular Robinson Crusoe place to me. Let's scout around and see if we can find Friday's or somebody's tracks."

The Shell Hunters hastily explored the key, the pelican flapping along after them. They judged it to be about four miles long and about a mile wide at the widest place, which was in the middle, the whole being a perfect crescent in formation. In the center of the key was a sand ridge nearly fifteen feet high in places. It was sparsely covered with bunches of grass and clumps of buttonwood bushes, and here and there the tall slim bole of a palm tree stood out with ancient stateliness against the sky.

"It's a dream of a place," Roddy said. "Look at Old Man—cutting capers like he wasn't seventy-five or eighty, for all we know. If he could see he'd go crazy about this."

At the foot of the sandy ridge in front of a palm tree the Shell Hunters built a camp fire of bleached driftwood. They roasted oysters, which they had gathered on the way from immense clusters of them

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on mangrove roots, fried young mullet, and ate supper in exultant peace, as they watched a sunset such as they had never beheld and a short afterglow that seemed to rise from the sand around them, diffusing a soft golden light that tinted the shells with beauty enchanting. Old Man, who had received his allowance of raw fish, settled down near them, as with their blankets they made their bed on the warm, clean sand. The gulf trade wind had freshened at sunset, and, singing along the beach, it stirred up from the sand, powdered almost to the fineness of flour, many little whirlwinds that looked like wraiths skipping across the key. They slept soundly, for they had long since learned not to hear, in their sleep, the many strange night sounds of the keys, not even the noise of the whooper nor the shriek of the limpkin.

The Shell Hunters arose at dawn. No doubt they would have slept later, in that peaceful place, but Roddy was wakened by the pelican standing on his chest, an affectionate habit the old bird had, and Roddy, inaudibly expressing his opinion of the "nerve of the bird," wakened Skid. After breakfast they boarded the cruiser, pulled up stakes, literally, and set out to explore the confines of the lagoon.

They found it guarded by myriad keys, many of them not more than a dozen feet across, among which laced straits of varying width and depth. To make certain that the lagoon, and, therefore, the shell bed, was easily accessible from that side, they attempted to make a systematic cruise of the keys, and soon were lost in the labyrinth. For nearly three hours they hacked branches and roots out of the way, and turned here and there, completely baffled by the sameness of the evergreen heaps of mangrove boughs that seemed to spring from the water. They at last came to an inlet from the gulf, but they were more than an hour getting back into the lagoon, which they did entirely by accident, and much hard chopping, and they were firm in the opinion that a chart would be required to get into and out of the lagoon in any way other than that by which they had entered.

On the other side of the key, the outer curve of the crescent, was a stretch of water, shallow for some distance out, as they found by wading. Beyond the water was what appeared to be a dense and unbroken barrier of mangrove jungle.

The Shell Hunters boiled rice, made a clam stew—clams by the thousand were everywhere—and topped off the meal with coco plums, which they had found the previous morning. Then they set to work gathering a load of shells. They combed the beach for the finest specimens of each, and when they had finished they were satisfied that they were amply prepared to upset the Florida shell market. Their collection included the splendid golden-mouth murex, the beautiful cowrie, crown, wing, spindle, conch, lightning, basket, melon, wing, cone, auger, Florida purple, longhorn smoke, tower, tun, star and wedge shells, and a large number of other marine curiosities, all of them perfect and desirable, for, beside their exquisite coloring, they were polished to the smoothness of beaten gold by the wash of the tides and the sifting sands.

They camped on the key again that night, and were off at sunrise next morning. On leaving the strait by which they entered they went around looking for an opening through the jungle off the outer curve of the key, but they found none. Then they returned to the strait and carefully charted their course, so they could make a return trip without difficulty.

When the Ft. Myers man who had agreed to take their shells saw the specimen load they quickly arranged terms with him.

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He contracted to take all, of that high grade, they could deliver.

Before sun up the next morning they were on their way back to Shell Key, as they had designated it on their chart. As the little cruiser was cutting along down the Calloosahatchee, Roddy pointed to Old Man, perched importantly on the bow, and remarked:

"You said we needed a mascot—is he making good?"

"I'll say he is," Skid answered.

For a month the Shell Hunters carried two cargoes a week to their market, the eighth cargo bringing them a little better price, as the result of another man attempting to contract with them for the entire output of their bed. They had shoveled out a channel on the beach so the cruiser could be taken closer in to be loaded, and for about twenty-five yards in the entrance of the strait they had chopped out and enlarged the tunnel so it could be navigated without so much delay.

They were careful to keep the location of Shell Key a secret. Many inquiries were made as to where such splendid shells came from, but the dealer couldn't tell, having never been informed, and Roddy and Skid, when asked directly, always managed to be pleasantly evasive. They also kept an alert watch to detect if they were followed, but nothing occurred to excite their suspicions. They always left for Shell Key just before dawn, and, returning, were seldom seen until they entered the Calloosahatchee.

It was on their way back with their ninth cargo that they discovered that Old Man appeared to be permanently blind in one eye—the left.

"Poor Old Man," Roddy said. "And the strange thing about it is, the blinder he gets the more luck we have. If he should go stone blind I reckon we'd find a pearl bed?"

Skid made no reply for several minutes, then he said:

"But he won't have to worry if he goes deaf, dumb and blind, will he?"

"He'll have an aged pelicans' home with us as long as we're able to kick, I'll say," Roddy declared. "And his rations won't be cut, either."

Within half an hour after they arrived in Ft. Myers three men who said they were Key Westers, who had seen the shells at the dealer's, and wanted to market them direct, hunted them up and tried to open negotiations with them to buy the shell bed outright. The Shell Hunters were anything but favorable to the proposition, but finally reluctantly consented to an appointment the following morning with the men, aboard their ship, which was anchored in mid-stream.

"Didn't I tell you!" Roddy said, as soon as they were away from the men. "If that pelican goes blind we'll be millionaires."

"But we don't want to sell the shell bed, do we? In the first place, it's not ours to sell; we only found it. All we could sell is our knowledge as to its location. But let's not sell. We'll make enough out of it, as it is, and think of the fun we're having, bringing up the shells!"

"I know," Skid said. "The shells don't belong to us, exclusively, of course, and I wouldn't care to sell something we have no title to; but, on the other hand, we found them. We made a passage to them, we dug a channel so we could get the boat nearer to them, we've studied up on conchology so we'd know shells, and, after all, they belong to us as much as they belong to anybody. So far as I know, which is not very far, I'll admit, there is no priority as to ownership of shells on the seashore; and unless some one owns this key, we have an equal right, I think, and are entitled to barter that right, which is vested in our

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knowledge of the location. And it is almost a certainty that no one owns the key. In fact, it is likely that the last person before us to see this key was a Seminole, in the days when the Indians inhabited these places. I have heard that there are islands down here that have never been explored by white men, and I believe it."

"You talk like a lawyer or a law student, I can't tell which," Roddy interrupted.

"And, as you say," Skid went on, "think of the fun we're having. And they probably won't offer us much, anyhow. Judging from their personal appearance, they certainly do not look like they could pay very much; still, they've got a ship, and you can't always judge a sea-faring man by his personal appearance, I reckon. But we might just as well hear what they have to say."

The Shell Hunters slept on the cruiser, were up at daylight, got their cargo of shells hauled to their dealer, received their check, for $35—up to the previous cargo they had received only $25—and were ready to keep the appointment.

By arrangement the Key Westers sent a boat, rowed by a Cuban, to bring them. Their ship was a two-mast schooner with power, named the *Rainbow*. The Shell Hunters could see no possible analogy between the name and the ship, for they had never been aboard a more carelessly kept craft. The deck was piled with a little of every sort of marine junk, and it seemed that scrubbing was a lost art with the crew. The only semi-respectable place was the cabin, occupied by the three Key Westers. But the Shell Hunters noted that every outline of the ship indicated strength and tremendous seaworthiness.

The Shell Hunters, influenced by the bad impression made on them by the appearance of the vessel, hurriedly explained their feelings in the case, and asked to be excused from making a deal, insisting, however, that, under the circumstances, they were not doing wrong to keep the location of the key a secret. The Key Westers agreed with them in everything, and then offered $500 to have the shell bed turned over to them.

The Shell Hunters were surprised, for they had not expected an offer of more than $250 or $300 at the most; but they were not tempted by it, and told the Key Westers that not only did they expect to make $500, perhaps more, clear profit out of the shells, in addition to what they had already made, but that they got huge enjoyment out of the work.

The Key Westers refused to take "no" for an answer, and promptly raised the offer to $750, explaining that they had means of manufacturing various articles of adornment out of the shells, and marketing facilities that warranted them making the higher bid.

The offer set the Shell Hunters to thinking hard. It really was a temptation, and they asked for time to consider, but the Key Westers evidently suspected that they were trying to get away from them, and advanced the offer to $1000.

"And we'll pay it to you here and now," said the one who was conducting the negotiations, "provided we start at once. We have no time to lose."

The offer seemed too big to turn down, and the Shell Hunters surrendered. The money was counted out to Roddy, while the Cuban boatman took Skid to bring the cruiser and such provisions as they needed for the trip. To Roddy's astonishment, $500 of the money was in $100 bills, and the remainder in $50's. Roddy rolled the bills up and tied them with a string and put the roll in his hip pocket, where it was protected by a buttoned flap. When Skid returned they both affixed their signatures to a receipt for the money. And then they started for Shell Key. The Key Westers

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suggested that the Shell Hunters remain aboard the *Rainbow,* and that the cruiser be towed until it was necessary for it to take the lead. The Shell Hunters consented to be towed, but elected to make the trip on the cruiser—with Old Man, who, as usual, perched with patriarchial dignity on the bow.

The *Rainbow* was a fast traveler, and they arrived off the entrance to the secret strait early in the afternoon. The Key Westers and two of the crew in one of the ship's boats followed the cruiser in. The Shell Hunters berthed the cruiser in the channel they had made, and the ship's boat was beached.

"Well, here's the key and there are the shells," Roddy said as they went ashore. "I believe we've fulfilled our part of the contract, so if you'll excuse us we'll scare up some supper, and we'll be glad to have you sit in with us, of course. If you're going along the beach to look the shells over, it'll just about be ready by the time you get back. We'll camp here to-night, too, and we'll be glad to have you with us if you don't care to return to the ship."

They'd gone to their usual camping place, and Skid was already cleaning fish —Spanish mackerel and red snapper— they'd caught on the way. Old Man, whose superannuation had not, apparently, in the least impaired his appetite, was sticking close by, waiting impatiently for his share.

The Key Westers and the Cubans went a little distance away and talked in low tones for a few minutes; then they returned, and the one who had made the deal said:

"It's no use to delay. We do not intend, of course, to pay you or anybody a thousand dollars for a shell bed, because shell beds are free. This one is as much ours as it is yours. You yourselves said aboard our ship at Ft. Myers that it was not yours to sell. But we do not want to have any trouble about it, so you can hand over the thousand dollars and we'll give you $50 for bringing us here, which is good pay at that. And also you can get a load of shell if you want, for, as the bed is not ours any more than it is yours, we cannot prevent you. We intend to load all the shell while we are here. Come on, hand over the thousand."

The Shell Hunters, amazed at the deliberate boldness of the trick, remained motionless and silent till the Key Westers started toward them. Then Roddy, whose fighting blood was slowly rising, replied:

"You don't mean to say that you're going to try such a contemptible, two-faced trick as that?"

"No further words with 'em, boys," the boss Key Wester said. "That one there has it; take it from him. Don't be afraid, he's got no weapon, as I've found out; but watch the other one with the knife."

As the Cubans closed in on Roddy, he jerked the roll from his pocket and attempted to throw it as far as he could into the grass on the other side of the camp, but one of the Key Westers caught at his arm, and the roll went high over Skid's head, who, knife in hand, had started to Roddy's rescue, and fell in the pile of fish.

The Key Westers at once turned their attention to finding the roll of money, and the Cubans, who had seized Roddy, quickly released him when they saw Skid rushing at them with a knife. One of them drew a knife almost as big as a cutlass and started opening a wicked-looking blade.

"We're beat," Skid said to Roddy. "Let's get to the cruiser while we can. I saw you throw the roll; if they don't find it right away they'll be mad enough to bury us alive."

They ran at top speed through the surf to the cruiser, yanked up the stakes, and rushed it down the channel to deep water.

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They heard the boss Key Wester storming at the others:

"Find it! Find it! I saw it in his hand, and I saw him throw it. It's here somewhere!"

In the mêlée the Shell Hunters had forgotten Old Man. They saw him standing a few feet from where the 'round and around search was going frantically on, and both gave their feeding call, a long, sharp whistle. Old Man arose with a quick, noisy flapping and came sailing to them.

It was not until then that the boss Key Wester seemed to realize what was happening, and he flung a volley of epithets at the Cubans:

"Bring them back here!" he roared. "They'll either find the roll or feed the sharks!"

The Cubans rushed swiftly for the boat, ran it into deep water and leaped into it, one seizing the oars and the other brandishing his knife and jabbering threats. But they were far too late. The moment Old Man's feet settled on deck Roddy put on every ounce of engine power and the cruiser went tearing like mad for the strait.

Skid ducked into the cabin and came out with their rifle.

"Don't," Roddy said. "You won't need it. Besides, we wouldn't shoot one of them for many times a thousand dollars."

But Roddy was mistaken as to the true caliber of the Key Westers, for at that moment they saw the boss Key Wester, who had run far into the water, urging the Cubans on, throw up his hand, and there followed puffs of white smoke and sharp crashes. The first ball tore into the deck not far from where Skid was crouched on one knee, and the second passed just over his head and hit the cabin and glanced off with a loud "ping." Old Man gave a squawk and a flop and tumbled, kicking, into the bottom of the boat, spilling a mass of fish from the pouch of his bill. For a moment he squawked and floundered, then he got to his feet and with an air of injured dignity began to gather up the fish he had spilled. But strangely enough, he refused to gobble down a slimy green lump he had spilled out with the rest of the fish.

The firing stopped as shots fell short.

"We're out of range now," said Roddy, "and those Cubans haven't got a chance with that boat. The rest of the *Rainbow's* crew won't know and won't bother us—it's nearly a mile from the strait, anyhow; and once outside we'll soon be among the close-in keys, where their old ship can't follow us."

Skid laid down the rifle and went to look at Old Man. He was still busily engaged in collecting his spilled lunch, occasionally uttering a low squawk of indignation.

Both Roddy and Skid began to chuckle at the queer sight he presented, but suddenly Skid gave an exclamation of surprise and grabbed at the fishy mess on deck.

"Here's the roll!" he yelled, holding it up. "It's all wet and slimy. Old Man couldn't see it and gobbled it up with the fish while we were busy with the Key West gang! Must have spilled it out when that shot scared him out of a year's growth. Glad he didn't gobble it down a second time."

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'Noffin' But Noffin'

By Clarence Elmer

Illustrated by Bert N. Salg

Ho son! What yer doin'?
Noffin' hey? Who's helpin' yo'?
"NOBODY" Ah reckon,
An' Ah s'pose 'en yo' get fru—
NOFFIN's all yo'll hab ter show.
Fo' de Noffin' yo' done do!
But yo'll hab some satersfacshun—
Ef yo' cayn't make no display,
Yo'll hab no tools ter polish up,
An' no mess ter cl'ar erway,
Kase yo' don' make eny "shavin's"—
Doin' Noffin' all de day!

Ah wan'er tol' yo' sompin'
'Bout 'at "Doin Noffin'" son,
Ob all de ocyerpashuns,
It's de mos' deludin' one—
Kase yo's at it all de blessed day,
An' 'en de day am done,
Yo' neber seem ter notice
'At it's quittin' time —instead—
Yer jus' keep "Doin' Noffin'"
While yo's fas' er-sleep in bed.
But yo' don' ercomplish "Noffin'"
An' yo' neber git erhead!

"Doin' Noffin'" leads yer
To de "City ob Nowhere,"
Whar yo' sit ermong de ruins
Ob yo' "Cas'ls in de Air,"
An' view de countless "Noffin's"
What yo' scatter'd Everywhere.
De "Noffin's" ob yo' boyhood,
'En yo' wouldn' go ter school;
De Manhood "Noffin's" planted
To de "Doin' Noffin'" rule—
All growin' in de Gyarden
Ob er "Good fer Noffin'" fool.

"Noffin'" to be proud ob,
"Noffin'" but Regret;
"Noffin'" wuth rermemberin',
Still yo' cayn't fo'get—
De "Noffin'" yo' was born wif,
An' de "Noffin'" yo' has yet!
Rows an' rows ob "Noffin's"—
Far as yo' kin see—
Windin' 'mong de weeds an' tares
Ob en'less misery—
Yer Sowed De Seeds ob "Noffin'"——
An' 'ats de Reaper's fee!

Lordy! Whar's yo' gwine?
Scamp'rin' 'ataway!
Oh! ter work on 'at 'ar henhouse
Yer bergun de oder day!
Kase, tho' et won't be doin' Much,
It's Sompin', enyway!
Hi! 'At's de spirit, Rastus!
Do Sompin' All De While,
Kase ef yo' jus' does Sompin',
Yo' Bank ercount 'll pile—
But, while yo's Doin' "Noffin'"—
Why dey's "Noffin' Doin'" chil'.

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Lights of Home

By E. L. Bacon

Illustrated by Harold Anderson

MILLVILLE'S annual sensation, the circus, was packing up for its trip to the next town. It was very late at night, a long, long time after Millville's hour for going to bed. On the circus grounds flaring torches illuminated a scene of melancholy wreckage—the big tent gone, piles of seats scattered here and there, the earth ring where so many wonders had been shown now only a dismal, deserted blemish in the field, the menagerie wagons closed tight, with only the elephants still on view, looming huge and mysterious in the dark. Instead of the stirring music of the band and the raucous voices of side-show "barkers," peanut and lemonade venders, there was the rumble of heavy wheels and the shouts of the working gangs.

To the Millville boys that had dared to stay out until that hour it was a depressing, heart-rending sight. A magician had waved his wand, and the fairyland he had created was fading away before their eyes. It was like awakening from a fascinating dream, one of those dreams where the pirate treasure has just been discovered when a knock on the door brings everything to a cheerless end in a cold, gray dawn of reality. However, like mourners at a funeral, they meant to hang on to the bitter end; but now and then as the night wore on one after another would be shaken in his determination and would turn sadly away toward the dark, sleeping, tree-embowered town that clustered about the spectral, white wooden steeple of the Methodist church.

By the time the wagon caravan was at last getting under way only two boys remained on the scene. They were typical small-town boys of that time, sturdy and red-cheeked, dressed in ill-fitting, home-made clothes and heavy leather boots with copper toes. Copper-toed boots were the prevailing fashion among boys in those economical days, when mothers gave thought to the saving of leather.

When he saw the wagons begin to move, Tom Labaree's heart sank even lower than it had been. A whole dreary year would pass before the circus would come back.

"Oh, gee!" he exclaimed. "Oh, gee! I wish I could go with a show."

"Me, too," echoed his chum, Peter Trimble. "Be great, wouldn't it, seein' the animals every day and knowin' all the performers. If I had a business head on my shoulders like you got, Tom, I'd make a break for it. You'd get along all right. You're the sharpest feller in town. You could always make money twice as fast as me."

A tall, stoop-shouldered man appeared suddenly before them out of the dark, and proceeded to study them with sharp, shrewd eyes. He was the wagon boss, and he was short-handed just then, as some of his men had quit without notice the day before.

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"I heard what you boys was talkin' about just now," he said, "and I dunno but there might be a chance fer you with this here show if you want to come along. We got lots o' jobs you could tend to."

The boys stared at him bewildered, not knowing what to say, but their hearts were beating wildly.

"You mean it?" Tom Labaree cried at last.

The wagon boss chewed a toothpick while he considered.

"Yep," he concluded. "You can come. I'll find work for you."

"When?" asked Tom.

"Right now. Don't expect this show to wait for you, do you? I lit out with a show myself when I was a kid, and I didn't stop to say good-bye to my folks, either. I'd have felt a rawhide across my back out in the woodshed if I had. No use sayin' good-bye if you want to come."

Tom looked at Peter, and Peter looked at Tom. They both felt that a great crisis in their lives had come, and they needed mutual support.

"What'll it be, Pete?" demanded Tom. "Are we goin?"

"If you go I'll go," returned Peter, turning his back on the town so that the sight of it would not interfere with his resolution.

"All right," said Tom, squaring his shoulders and gulping down his fears.

"Get aboard!" shouted the wagon boss. They climbed up with him to the high seat of one of the animal wagons, and rolled away on the road into the unknown world that lay beyond Millville's horizon.

As the slow-moving caravan came to the top of a hill, which in a moment would shut out the last view of the town, both boys looked back. On the rim of the dark hollow where Millville lay they saw their homes, and in a window of each little house a light was twinkling and beckoning after them.

A half-choked sob came from Peter Trimble.

"My mother's back there sitting up for me," he muttered. There were tears in his eyes, and he wiped them away with his sleeve.

"My mother's sitting up for me, too," Tom Labaree said. "If I went back now she'd take a slipper to me, sure—and I guess yours would do the same to you."

"I'm going back!" cried Peter Trimble as he started up from the seat. "Let me down! I'm going back!"

"Oh, well, if you feel that way about it, all right, go ahead," said the wagon boss, and, turning to Tom Labaree, he added, "How about you, son?"

Tom Labaree watched his chum clamber from the wagon and disappear down the dark road. Then he turned his face to the wagon boss, who grinned as he saw the boy's look of grim determination.

"I'm not going back," said Tom Labaree.

"Git ap!" cried the wagon boss.

The horses broke into a trot, and, as the wagon went rumbling over the crest of the hill, the two remaining lights of Millville dropped out of sight.

Under a big circus tent Tillie Fay, "champion lady bareback rider," poised on one foot on the back of a cantering white horse, was circling round and round the ring to the music of the band. Now and then she gave a beaming smile and kissed her hands to the crowded tiers of seats in acknowledgment of the applause that rewarded the somersaults she had been turning through flaming hoops.

Tillie Fay always had the crowds with her. She was daring, reckless, as nimble as a cat, a young "comer" with a big

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future. She knew her act was too good for a small-town show and that it was only a question of time when she would graduate into greater opportunities. Pleasing "hick" audiences was easy—too easy for her. But it was not so easy for the fat clown who ran puffing and blowing behind the white horse, shouting to it to stop. He found his efforts unappreciated. He had worked himself red in the face without raising a laugh, except from a few very small children and a few simple-minded folk who always laugh at a clown whether he is funny or not. All his stock jokes he had tried, all his old tricks of tripping headlong over ropes or bumping into the ringmaster, and he had sung songs that he had been able to count on once as sure hits but that now fell flat. It was all "old stuff," even for "hick" towns. He was 'way out of date, this fat clown. While little Tilly Fay had a bright future in store for her, he had only a past. There had been a time when he was a star attraction in three-ring shows touring only the big cities. But there was no chance of that now. He was getting old, and had lost his "punch."

From the topmost tier of seats a voice roared down: "You're all to the good, Tillie! But, oh! can that clown!"

Even after the act was over and the crowd had forgotten him the words kept ringing in the clown's ears as he sat, tired and sulky, in the dressing-tent.

"So this is Millville!" he muttered to himself with a snarl. "Huh! A lot o' rubes! Whaddo I care!"

He had changed from his ring costume to the clothes of every-day life and had washed the paint from his face. Now he looked his years—a gray-haired, heavy-jowled, pot-bellied man, who had not found it necessary to pad himself into fatness, as other clowns did, in making up for his performance.

His fourteen-year-old son came into the tent looking as gloomy as his father.

"Pop, I wish I could get out of this show life," said the boy, "and be like other kids. What chance have I got bumming around the country with a circus?"

"Most kids are crazy to get into a circus," returned his father, "instead of trying to get out of one."

"That's because it's something new to 'em," replied the boy. "If they'd been with one as long as I have they wouldn't think that way. You ought to know, pop. You ran away to join a show when you were my age, and now you wish you hadn't. That crowd out there came pretty near mobbing you to-day."

A bitter look came into the clown's round face. For a few moments he sat in moody silence, his thoughts traveling far back into the past.

"You're right, Mark," he said at last. "I wish I hadn't. I've wished that a thousand times. And you can bet that whenever I find a kid trying to beat it away from home to go with a circus I tell him a few things that make him think again."

A scratching sound came from just outside the tent. A town boy was trying to worm his way under the canvas wall. He had tried to do the same thing at the main tent and had been pulled back by the legs just as he caught his first and only glimpse of the performance. Now he had managed to get his arms and the top of his head under the canvas, and he was reaching out for something firm to get hold of that he might pull himself inside. His hands found the ankles of young Mark and made fast to them. He did not know what he was gripping, but he pulled hard, and Mark, with a yell, toppled over and came sprawling down on the town boy's head and shoulders.

"Say! What you tryin' to do?" cried

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the circus boy angrily, driving his fist into the unwelcome visitor's face.

Promptly the town boy retaliated with a hard swing to the nose.

Before another blow could be struck the clown had hurried over from his chair and pulled the fighters apart.

"That'll be about enough of that," he remonstrated mildly.

"Lemme throw him out!" roared Mark.

"Oh, no," said the clown. "He's in now! let him stay. What's the matter, kid? Didn't you have a ticket?"

"Nope," the town boy answered sulkily.

The clown looked him over sharply.

"Pretty good clothes you're wearing," he observed. "You don't look as if you came from poor folks. How comes it you couldn't raise the price of a ticket?"

"My dad sees to it that I don't have a cent when a circus comes to town," replied the boy.

"Huh!" grunted the clown. "Your dad, I s'pose, don't believe in boys havin' a good time."

"You're a good guesser," returned the boy. "He's dead set against circuses."

"What's your name?" the clown inquired by way of making conversation.

"Peter Trimble."

"What! Say that again."

"Peter Trimble."

"Well, I'll be derned!" gasped the clown, dropping into his chair with a thud.

For a full minute the clown sat scratching his head and staring at the boy. At last he asked, "Peter Trimble, junior, ain't it?"

"Yeah; that's it. How'd you guess that?"

"Well, I saw your dad's name over a big wagon factory to-day."

"Sure; that's his. So's the bank. So's the lumber yard."

"You don't say! That dad of yours seems to be quite a prosperous old geezer. But he's dead set against circuses—ha, ha! He must have changed since he was a boy."

Peter Trimble, junior's gaze was wandering about the tent. His eyes fell on the clown's costume, which had been left on top of a trunk. A startled expression came into his face on making this discovery.

"Say!" he cried. "Are you the clown?"

The fat man nodded.

"Gee!" exclaimed Peter Trimble, junior. "Gee! I never thought I'd get a chance to talk to a real clown. Say, when my brother Bill hears about this he'll pretty near have a fit. He's never seen a clown in his life. Couldn't if he wanted to. Somethin' happened to his back once, and he can't walk."

"He can't walk?" echoed the clown, his eyes full of sympathy. "That's pretty tough, ain't it?"

He sat silent for a few moments, wrinkling his forehead and evidently thinking hard. Then the wrinkles smoothed out, and, grinning broadly, he said to Peter Trimble, junior:

"I'll tell you what, sonny. I'll hang over in this burg to-morrow morning, and, if you'll take me to your home, I'll get into my costume and give brother Bill his chance to see a real live clown."

The boy's eyes opened wide. "By golly!" he cried. "Do you mean it?"

"Sure I mean it."

"Well, you can bet I'll fix it all right," the boy assured him. "Won't be any trouble about gettin' mother to stand for it, and dad'll be away at the works. Say, you won't forget, will you?"

"My word's good, sonny. I won't forget. Here, Mark; take the kid out and show him the side-show and the animals. That'll be better than givin' him the wallop in the jaw you've been countin' on."

The following morning a curious thing happened in the perfectly regulated life of Peter Trimble, senior. It would have been

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not at all surprising if it had happened to anybody else, but when Mr. Trimble, who prided himself on never forgetting anything that related to his business affairs, discovered as he sat in his office in the wagon factory that inadvertently he had left a packet of important papers at his home instead of bringing them to the office, as he had intended, he began to wonder whether he was losing his mind. In all his business career he had never before been guilty of such a piece of carelessness. He began to ponder over his mental condition, searching for a flaw. After devoting several minutes of his valuable time to this anxious self-examination he concluded that his mind was as clear as ever, whatever its condition might have been when he left home. He must be getting old, he told himself. It was either that, or some worry had been preying on his mind that interfered with its usually smooth-running mechanism. He groped into his memory to discover whether there really had been any such worry to upset the even tenor of his ways.

"It was that confounded circus!" he exclaimed at last.

Yes, that was it beyond a doubt. He had been worrying a lot about the circus. It would be a good thing, he thought, if Millville had a law that would keep circuses away. They had a corrupting influence upon boys, and he wasn't any too sure that they would not spread moral contagion to his owns sons sooner or later. Across the street and directly opposite his office windows was a billboard, which bore a picture of Tillie Fay and her white horse. He scowled as he looked at it, then consoled himself with the reflection that the circus had gone and wasn't due to arriv again for a whole year. But that fact not save him from the necessity of home for the packet of papers.

Getting into his motor car, he speeded homeward. He lived on the slope of a hill in Millville's outskirts in a big house from which there was an expansive view of the town and the surrounding country. As he arrived he was startled by most unusual sounds coming from inside.

At the top of the doorsteps he stopped to listen. A stentorian masculine voice was singing a song, punctuated here and there by handclapping and wild shouts of approval. The shouts he recognized as coming from his two sons, but the voice of the singer puzzled him. "Must be the phonograph," he thought, but he couldn't understand how such a vulgar, slangy record could have come into the house. The buying of the records for the home was under his own supervision, and he drew the line at anything that did not appeal to him as suitable for a refined household.

The song was followed by a quick succession of jokes, which were shouted so loud that the house rang with them—jokes that seemed to Peter Trimble, senior, to be more suitable to a circus ring than to his own usually quiet and circumspect home.

Mr. Trimble felt his anger rising rapidly. He was shocked, scandalized. Fortunately, no neighbors lived within hearing distance, but he glanced timorously down the road to make sure that no passers-by might overhear the disgraceful orgy. After convincing himself that no one was in sight, he pushed open the door and stepped inside, breathing hard and prepared to deliver a scathing rebuke to his sons and, if necessary, to the entire household.

As he entered the hall the whole house shook with a terrific commotion. Mingled with shouts and laughter came a succession of bumps and thuds, as if heavy pieces of furniture were being moved about and dropped recklessly to the floor.

Trimble hastened through the hall of the big living room. After

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one peep through the portières he drew back with a gasp. In the center of the room a fat clown, in full costume and with grotesquely painted face, was bouncing about in all sorts of strange antics, dancing, falling down, springing up again as if he were made of rubber, turning handsprings, and puffing desperately with the exertion. Not in years had the clown tried so hard to please an audience. He was his old self again, as he had been in his palmy days of youthful enthusiasm, and he knew that he had never given a better performance in all his career. Grouped at one end of the room and applauding vigorously were Mrs. Trimble, Peter Trimble, junior, the cook and the two maids, while stretched on a couch was Bill, his pinched face aglow with pleasure and excitement.

Mr. Trimble's first impulse had been to rush in and demand an explanation from all concerned, but the face of Bill caught his attention and held him spellbound. He had never seen the boy looking so happy, so full of enthusiasm, so little like a pining invalid as at that moment, and as he stood behind the portières watching him he forgot how furiously angry he had been. He felt that he could forgive a good many transgressions if they brought any cheer into the dreary monotony of Bill's life. For a moment he was almost pleased. But, as he turned the matter over in his mind and reflected that the clown had been brought into his home and permitted to give his outrageous performance without the knowledge or consent of the head of the family, his temper began to rise again. It was Peter Trimble, junior, who brought him to a swift decision.

"Oh, gee!" exclaimed young Peter, "I wish I could go with a show."

Such a declaration as that was too much for Peter Trimble, senior, to tolerate for an instant, and, thrusting the portières aside, he strode into the room boiling with indignation. The Trimble family and the servants seemed to wilt as they saw him coming. The clown, sensing that something had gone wrong, brought his performance to a sudden end.

"What's the meaning of this?" demanded Mr. Trimble. "Who is responsible for putting such a notion into my son's head?"

Still puffing from his exertion, the clown turned to the outraged head of the household. "I guess the kid inherited that notion from his dad," he retorted.

"What!" thundered Mr. Trimble. "You accuse me of corrupting my boy?"

The clown paused for a moment to catch his breath, then, advancing upon Mr. Trimble and shaking a finger at that astonished man's nose, he exclaimed, "Why, you old hypocrite, you wanted to run away with a circus yourself once."

"Where did you ever hear that?" Mr. Trimble demanded, turning very red.

A silence fell, while Mrs. Trimble, her sons, the maids and the cook strained their ears to listen.

"I heard it from yourself, Pete," the clown answered, "down in the circus field when you were a kid."

For a long moment Mr. Trimble studied the painted face that was grinning into his. Impulsively he grasped the clown's hand.

"I'm glad you've come, Tom Labaree."

A few hours later he and Tom Labaree were sitting on the Trimble porch.

"Funny how fate works," Mr. Trimble observed. "I suppose if I hadn't caught sight of the light in my home as we rode up this hill that night I'd have stuck to the wagon, as you did, and been with a circus the rest of my life. Too bad you didn't turn back, too, Tom."

"I wish I had," said Tom Labaree.

"Many's the time, when I was plugging away trying to get my business on its feet, that I wished you had stayed in Millville.

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I'll give you a good start if you'll accept my offer of a job."

"I'm going to accept it," said Tom, looking down dreamily into the hollows in the hills where Millville lay. A light came twinkling into the dark from a little white house on the edge of the town.

"Look!" cried he, rising to his feet. "There's the house I lived in when I was a kid. I've always hoped to go back there."

"Well, that's where you're going," returned Mr. Trimble. "I own that house, and I've been keeping it for you in case you ever drifted back."

Tom Labaree did not speak for a while. He was so shaken with emotion that he dared not trust his voice. But, after a long look into the dark valley, he answered, "I guess you must have known all the time how I was feeling about that house, Pete. There's the light in the window now, shining for me just as it did when I was a kid. Many's the time in all these years that I've imagined I could see that light twinkling after me and beckoning me to come home."

Bow! Wow!

By Arthur Guiterman

Bim was a bull-pup who hadn't any sense;
Tom was a tom-cat a-walking on the fence.
Bim had a beef-bone and Tommy came to see;
Bim snapped at Tommy's tail and chased him up a tree.

Bow! wow! wow! wow ! wow! wow! wow!
Waking half the village up to hear the awful row.
"Drat him!" all the neighbors cried, "and what's the matter now?"
Bow! wow! wow! wow! wow! wow! wow!

Bim sat and watched him for half a summer night;
Tom put his back up but didn't dare to fight.
Bim shut his eyelids and took a little doze.
Tom stretched a patty-paw and raked the puppy's nose.

Ki! yi! yi! yi! yi! yi! yi!
"Don't you dare to bark at me when I'm a-passing by!
If you don't behave yourself, I'll scratch you in the eye!"
Ki! yi! yi! yi! yi! yi! yi!

Bim tucked his tail in and went away from there;
Tom licked his whiskers and didn't seem to care.
Bim brought the beef-bone to Tommy for amends.
Tommy and the puppy-dog are now the best of friends.

Bow! wow! Meow! wow! Meow!
Thomas-cat and puppy-dog, you ought to see them now!
Playing all around the yard, they never have a row.
Bow! wow! Meow! wow! Meow!

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Not in years had the clown tried so hard to please an audience

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He grabbed for her and barely scratched the stern

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Before Light

By Albert W. Tolman

Illustrated by A. O. Scott

DING-*dong! Ding-ng . . . dong-ng!* Bert Coolidge rolled over and groaned. It seemed as if his eyes had not been shut two minutes. The sound died away. Just as he was drifting comfortably off, again—*ding-dong! Ding-ng . . . dong-ng!*

Bert felt indignant. When a fellow needed his forty winks most, why did something always happen to rouse him? Half-asleep, half-awake, he began drowsily trying to account for that faint, persistent ringing.

Sleigh-bells . . . school-bells . . . fire-bells . . . church-bells . . .

Probably church-bells. Baptist? Wrong direction. Methodist? Too far off. Congregationalist had no bell. No; not church-bells.

Engine-house, perhaps? Bert pricked up his ears. No; wrong again. Not fast enough for a fire; and too rusty, melancholy, lingering. What bell could it be then; and why was it ringing at such an unearthly hour in the night?

Ding-dong! Ding-ng . . . dong-ng!

Bert could stand it no longer. He started up, and bumped his head against a splintery board. Then he remembered he was in a bunk in his cabin on Little Haystack, and knew he had been listening to the Dilloway Reef bell-buoy. Its ringing meant that there was a swell enough to rock the float, and swells meant wind, and wind meant a storm was coming.

Out he jumped, wide awake. In a jiffy a match was sputtering. His watch said half-past three. He opened the door, and the cold, damp air rushed in. There was no moon, and the low clouds hid the October stars. Far to windward the whistler on White Horse grunted lonesomely—*umph . . . umph!* Save for the twinkle of Mark Island light, it was ink-black.

Shutting out the chill draught, Bert put a pan of water to heat on his oil-stove. Dark or not, his grapplings must strike bottom as soon as he could get them there. He had come out alone from Porter's Harbor late the night before; and he did not propose to be cheated out of a try at the cod and haddock on Whaleman's Ground, just because a storm was brewing. He could set his trawl by lantern-light, and crawl into his bunk for another nap, while the fish were hooking themselves.

Two cups of hot coffee, three big squares of butterless corn bread and a generous wedge of cold mince pie gave Bert his breakfast. Lighting his lantern, he hurried down to the *Myra*. A light frost silvered the boat. Despite his thick reefer, Bert shivered, as he started the engine.

After running eight minutes southwest by his compass, he stood up, and held his lantern high, so that its light would shine ahead. Presently by its glimmer he picked up the black can buoy at the southern end of Whaleman's Ground.

Good shot! Bert swung the *Myra* east-

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ward. He threw the canvas cover off the trawl-tub on the stern seat in front of him, and dropped over his first buoy. Next went the six-pound window-weight, attached to the end of the trawl as anchor. It found hard bottom at twenty-five fathoms. Good again! He was right on the tip of the shoal.

There was three-fourths of a mile of ground-line, snugly coiled in the tub; to it was attached every few feet a thirty-inch ganging, or short line, bearing a hook baited with squid. The trawl had more than six hundred of these hooks. As the boat churned eastward across the strong ebb at a six-knot gait, Bert paid out the line smoothly to starboard from the fast-emptying tub. Occasionally he jogged the tiller to keep the tide from swinging him too far to the south.

At the end of twenty minutes the last loop whipped out of the tub, and the second window-weight followed it over the side. The buoy-line lay in a coil by Bert's feet. He ran it out rapidly. Close to the keg came a snarl.

Lifting the buoy to the washboard, Bert bent over, both hands busy with the tangle. The *Myra* rose on a swell. When she pitched down, he lost his balance, and plunged overboard, keg and all.

Ouch! but it was cold. The Atlantic in October is no Turkish bath. Bert popped up, and clawed for the launch. Unluckily the buoy-line, drawing across his chest, held him back. The boat plowed ahead. He grabbed for her, and barely scratched the stern. His next clutch did not touch her at all. Another vain lunge: she was still farther away, and going fast.

Bert made a few wild strokes, then stopped. No use; he could never catch her. There he was, boatless in that chilling water, almost a mile from Little Haystack.

Where was the buoy? He looked about, but could not see it. Panic shortened his breath. He could never find it in the dark. Drowning was only a few minutes off. He strained his eyes again. A faint glimmer from the receding lantern sparkled on the wet, shiny keg.

Bert soon had it under his arm; but his heart did not stop pumping, till he had gathered in some line, and lashed himself firmly.

He could no longer hear the chugging of his boat, but far eastward her lantern shimmered dimly against the low clouds. At last everything became black, black, black; and he was left alone in the autumn ocean, facing the toughest problem of his nineteen years.

He listened. The waves, the moan of the rising wind, the low grunt of the whistler, and the faint strokes of the bell —that was all. No pitch was ever blacker than the gloom about him. He could see absolutely nothing.

At first Bert felt almost hopeless. In an hour or so it would begin to light up; but long before day he would grow numb and drop over. It looked bad for him.

Bert did some hard thinking in the next few minutes. The thing analyzed down to this: how could he reach Little Haystack before the cold paralyzed him?

The island ran east and west, two thousand feet long. It lay a half-mile north of the center of Whaleman's Ground, with which it was exactly parallel. Its near-east point was at least three-quarters of a mile northwest of the buoy, for he was on the eastern extremity of the shoal.

If he cut loose from the anchor, the ebb would carry him southward, out to sea. Wait. In a half-hour the tide would turn, and sweep him the other way. Then, if he were only opposite Haystack, he could cut the line, and swim the buoy ashore. If he waited the turn of the tide in his

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present position, and then cut, he would be carried far north of the island.

Another idea. Why not hoist the anchor, cut it loose from the trawl, and, gradually pulling the trawl to the surface, drag himself along by it, counting the gangings, until he felt sure he was far enough west for the flood to bear him toward Haystack?

Could he do it? He must work while he had strength and his blood ran warm. It was that or nothing. Bert began pulling in the anchor-line.

Soon it ran straight up and down. Was the keg sufficiently buoyant to enable him to raise six pounds a hundred and fifty feet? Bert believed it was. Once during a storm it had become snarled in the line, had raised the grappling off bottom, and drifted into deeper water. If the air in the keg could hold up the anchor, he ought to be able to support his own weight by treading water hard.

Rearranging the lashings so that the keg was under his chin and both arms could work freely over it, he tried to start the grappling. A little slack came in; and then a stiff pull put his head under.

He eased away, and the keg lifted him above water. A sudden jerk, and under he went again. The window-weight must have caught on some rock.

With short, frantic clutches Bert once more dragged himself beneath the surface. When he came up the third time, he felt shaky.

A different angle might help. He swam to the right and tried; but he did not gain an inch. Swimming the other way, he pulled again. The second jerk twitched the anchor loose.

Bert opened his knife, and dropped it into the outside pocket of his reefer. Then he began pulling, and treading water. Half of the time his head was under. Reaching low, kicking, strangling, he fought for every one of the twenty-five fathoms. He was almost ready to give up, when his fingers touched the hard iron. A single cut; and the buoy lifted his shoulders clear.

After a brief rest he began pulling up the trawl, and dragging himself along. It came slowly. Each ganging, as he counted, meant five feet further to the west. Spurred by the threatening chill, he worked hard, sinking himself under again and again.

Black, black, black; as yet not the faintest streak of dawn. Oh, for the tiniest glimmer of gray! He thought of the *Myra* with her lantern, miles off, running east. His hands grew sore, but he dared not rest.

The ebb, flowing from the north against his right side, was weakening. At the eightieth ganging it slackened, ceased.

Bert's fingers were raw from tugging at the line, his blood ran slow and cold. He labored pluckily. Soon the sweep of the current against his left side told him the flood had begun.

The gloom was becoming less dense. A faint gray was stealing up the eastern sky. Bert gazed north, hoping to see Haystack; but it was not light enough yet. He passed the hundredth ganging, then lost count.

It was growing lighter fast. What was that, due north? Something like a mist-bank remained black, while all around it changed to gray. Yes; there was Haystack. He could make out the hump in its center. The tide had swept him toward it, and it was now only a few hundred yards off.

Bert let the trawl sink; it had served its purpose. Cutting the buoy-line, he began swimming himself along on the keg toward the island. The strong tide helped him.

As he neared Haystack, everything became more distinct. He could see the pyramid of rocks round the old spar on the highest ledge. He could see his cabin,

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with its windows staring on each side of the door. All seemed desolate and forbidding in the gray dawn.

As he came nearer, he saw that he was moving steadily up the shore. Haystack split the tide into two currents, north and south; he was going north, and going fast. Unless he swam hard, he would miss the island altogether.

Bert roused to fierce effort. His will was as strong as it had been an hour before, but the cold sea had sapped his powers. He had to stop frequently to rest; but the tide never stopped. The keg held him back. Yet without its support he would have sunk in twenty feet.

The northwest point of Haystack was only a few rods away. If Bert missed that, it meant good-bye to everything. The best he could expect would be a lingering death in the cold, gray sea beyond.

His eyes measured the distance. Yes, he was gaining; he would make it. Suddenly a fearful cramp seized his right thigh; another attacked his left. Hanging over the keg, he writhed in agony, while the island raced west. As the pain lessened, he struck out feebly. Too late; the point was sweeping by.

He remembered two narrow, slippery spurs of ledge running off under water. They were his only chance now. He dropped his feet; but they touched nothing. The tide must be too high.

His toes struck something hard. The ledge! Red-hot iron could not have roused him quicker. He could feel the barnacles grit and break under his heels, as he battled for a footing. Then the current swept him gently but irresistibly off.

Bert choked. For just a moment he hung limply over the buoy. Then his fighting grit came back. Hope was not utterly lost. He had one more chance.

His toes brushed the second ledge . . . scraped partly over it . . . caught . . . hung. There he must make his final fight; would it be Gettysburg or Waterloo?

Leaning forward, balancing and twisting desperately to keep his footing, scooping the water toward his body with closely pressed fingers, Bert struggled toward the weed-covered ledge only thirty feet away. Millions of tiny hands all over him seemed to be trying to push and pull him off the rock. He resisted, skating his feet quickly over the smooth, slimy spots, crunching down hard on the rough patches of barnacles. Again and again the cramp tied painful knots in his thighs. With set teeth he bore it in silence.

Foot by foot he tottered in; inch by inch the water shoaled. The weight of the light keg bowed him forward. It was easier to let it float. At last he was crawling on his hands and knees. Sheer will alone kept his strength always a little greater than the pull of the current. But his fate was in doubt every second, till he tumbled headlong out on the seaweed.

That forenoon the fishing smack, *Mertie P.*, running before the storm to Porter's Harbor, saw his signal smoke, and took him aboard. Three days later Bert recovered the *Myra* from a lobsterman who had picked her up: and the next week he and his brother Nathan went out to Little Haystack, and came back with a full fare of cod and haddock.

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Water--A Dollar a Drop

By Samuel E. Harris

A LOGGERHEAD turtle, having crawled up Snipe Point Beach to nest her eggs in the sand, shattered the rust-eaten top of an iron chest and scattered hundreds of doubloons about her. Jimmy Terry tracked her to her intended nest, turned her over, and at daybreak went ashore with Fred Hines to get her and four green turtles that they had captured during the night. Jimmy found the first doubloon a few feet behind the loggerhead. He and Fred, as they picked up other doubloons, were so excited they trembled like boys who have just come out of an icy surf. They turned the loggerhead back on her callipee and, when she had crawled seaward her length, saw the chest filled with gold.

Though Jimmy and Fred had heard many tales of gold having been found in the beaches of some of the Florida Keys, they had never attempted a treasure hunt. They knew that whenever reports reached Key West about finding some of the gold which Pill Pancho, a Spanish pirate, is said to have buried along the Florida coast, hundreds of men had dug into the beaches looking for it, just as hundreds have tried to find the money Captain Kidd is supposed to have hidden in Long Island and New England shores, and always with the same result—failure.

Jimmy and Fred liked to fish, to turn turtle, to pull big stonecrabs out of their holes in coral banks, to drive crawfish or catch them in bully nets, and to shoot 'coons or catch them in traps. And it heightened their pleasure to know they could sell all the fish, crabs, turtle, crawfish and pelts of 'coons they got.

They had been out in their motor boat, the *Jimfred*, four days, and the nights of two of those days they had watched for turtle at Bay Cayjoes, but, as they had turned only one, they had decided to try their luck at Snipe Point, three miles west of the other place. And a loggerhead, digging into the beach with her flippers to lay a batch of eggs, had dug over the spot where Pill Pancho or some other freebooter had buried a chest of gold a century or so before. The tides of a century had swept sand gradually from over the chest till it was less than a foot deep where the turtle dug.

Having removed the sand from the sides of the chest, they tried to lift it, but it crumbled into bits; so they put the gold into rice sacks, carried it aboard the *Jimfred* in a dinghy and counted it in the cabin. And while they counted, a black whirling cloud spread fast in the northwest.

"Seven thousand two hundred and thirty-one, Jimmy."

"How much is a doubloon worth?"

"Eight dollars."

"See what it comes to in dollars."

Fred figured, then answered, "Fifty-seven thousand eight hundred and forty-eight."

"Whee-ee-ee-ee-ee-ee!"

"What's half of it?"

Fred figured again. "Twenty-eight thousand nine twenty-four."

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Jimmy "Wheed!" again.

"Let's beat it for Key West," cried Fred.

They came out of the cabin and Jimmy squatted down before the engine to get it ready for running, while Fred crawled over the cabin to pull up the anchor.

"Look out there, Jimmy." Fred pointed to the northwest.

"That's nothing but a squall and we ain't got time to wait till it passes over."

With the carburetor wide open and the current turned on full, the engine in the *Jimfred* droned like a giant hummerkite as she shot through the outlet of Snipe Point Creek into Wall's Key Lane. A few hundred yards from the outlet the propeller struck the jagged tooth of a shoal, the shaft snapped, and the engine sang in frenzied falsetto. Jimmy sprang to the engine and pressed the button in the timer. They were nineteen miles from Key West.

"The shaft's broken, Fred. Get the rowlocks; we'll pull it."

"We'd better pull to the creek till the squall's over."

"No, no, Fred; it's Key West for us. We'll slip on our oilskins."

A damp breeze swept over the *Jimfred;* ripples capered over the long, sluggish swells; sun rays flickered and died out. And then the storm broke. It was too late when Jimmy learned that, instead of an ordinary squall, the storm was a heavy northwester. He and Fred strained at the oars to try to turn the *Jimfred* about to get back to the outlet, but, broadside to the wind and sea, the dinghy was swamped and the *Jimfred* shipped water till it reached above her flooring. Jimmy rushed to the stern, pulled out his bowie-knife and cut the dinghy away.

"We gotta turn her stern to it and scud, Fred."

The *Jimfred* dived deeply into troughs, rocked on the crests of billows, and dived again. And the rain, in big, slanting drops, poured into her, so that she was half-filled with water when she ran on a coral bar and tore a hole in her bottom, within a hundred yards of land on the south shore.

"It's all up, Jimmy!" Fred's lips quivered.

"What's all up? No sir-ree!"

Jimmy, though but sixteen years of age, was half a head taller and nearly thirty pounds heavier than Fred, who was a year older; Jimmy was one of those boys who are as big as men when half-way through their teens.

He went into the cabin and came out with the sacks containing the gold. They did not seem to have much in them, but they more than made up in weight what they lacked in bulk.

"You carry one and I'll carry the other."

"But what about grub and water?"

"I hadn't thought of that, Fred. I'll carry the water and you the grub."

The water had not reached to the larder in the upper part of the bow of the boat. Jimmy wrapped up hardtack, cheese, marmalade and bananas in his oilskin coat, for it was still raining. He gave the package and a sack of gold to Fred, and carried a sack and a five-gallon wicker-covered demijohn of water himself. With the water up to their shoulders just beyond the bar—Fred had the package above his head—they crossed a shallow channel to the mud near the dense mangroves. It was above their knees.

These mangroves, massed together, with slippery, projecting, intertwining roots that looked like the arms of mammoth octopi in deadly grips, were two miles in depth along the swampy shore of the lake. Jim and Fred, struggling through the mud entered gap after gap in the mangroves, trying to find an opening to the land proper, but each time they were stopped

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by tangled roots and low-spreading, interlocking branches.

"We couldn't get through them in a thousand years, Fred. And they're full of moccasins too."

"And the mangroves run like this nearly down to Raccoon Key. I don't think I can make it, Jimmy."

"Oh, yes, you can! It's only about fourteen miles."

"Only! I couldn't go fourteen miles through this mud in a month."

"Aw, go on, old man! These doubloons could make me walk fourteen hundred. Let's hurry. I won't be satisfied till we turn into the road this side of Raccoon Key and reach the viaduct at Boca Chica and flag a train."

Fred had been walking less than two hours when he began to complain of being tired.

"It's no use, Jimmy; the going's too hard."

"Come on, man, come on!"

"Let's take a rest."

"While we rest let's eat and drink," Jimmy suggested.

The rain had stopped and the wind had died down to a calm. It had not been calm many minutes before mosquitoes and gallinippers swarmed around the boys, who while they ate hurriedly, were busy brushing their faces and necks.

"Come on, Fred; if we stay here we'll be eaten alive."

Their advance was slow, painfully slow in Fred's case. And it was not long before he began to complain again. He proposed that they hide the sacks in the mangroves and use a broken limb as a stake to mark the spot.

"Me part with this just because I'm tired? Hunh-unh, Fred! I'll tell you what I'll do; I'll cut a strip off the end of one of the sacks and tie it around my waist and make the package fast to it. And I'll carry both sacks too, and you the demijohn."

The change relieved Fred. The sun was low in the west before he complained again. Jimmy, too, was weary, and his face and neck and hands itched and burned from mosquito bites. Both boys were eager to rest again, and, as they had done before, they ate while they rested. Fred declared, after they had finished eating, that they could go without "grub" till the next day and suggested that they throw away the remaining food.

"Besides," Fred went on, "you can have your oilskin back, and it'll come in handy, 'cause mosquitoes are thicker than ever."

With the coming of darkness a worse plague than mosquitoes attacked them. Sandflies about the size of pin heads dug into their flesh.

"Come on, Fred; walking's ten times easier than this."

Jimmy, though relieved of the package of food, was burdened far more than Fred. He grunted and groaned under the weight of the two sacks, and when they stopped again, it was he who suggested a change.

"Fred, it'll be easier for us to go without water till to-morrow. Let's take a good, long drink and throw away the demijohn. You can carry one of the sacks till you get tired and then give it back to me."

Almost exhausted and unable to withstand longer the stings of flies and mosquitoes, the boys stopped just before midnight, pulled their oilskins over their heads and waited for daybreak. The difficult walking made them think they had progressed four or five times farther than they really had.

The wait for daybreak was tormenting and nerve-straining; half stifled by the close-warm air under their oilskins, frightened by the crackle made by water-moccasins wriggling over dry branches and flopping into the mud, stung by flies and mosquitoes

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whenever they uncovered their heads, unstrung by fitful snatches of sleep, they were stiff and sore and fagged out when the sun came up. But they thought little about their stiffness and soreness and fatigue; their chief thoughts were of water. Jimmy was still game. His grit made him fight hardest when hardest pressed.

"Let's beat it, Fred. Carry one a little while, and I'll take it back from you when you get tired."

"I'll try, but I don't think I can go far, even without a sack. I could go the route, I'm sure I could, if I had a drink."

"Just try, Fred, boy; that's all; just try. Don't give up."

The first sun rays drove the sandflies to shelter, but the mosquitoes, though not so numerous as they had been during the night, were just as persistent. The higher the sun rose the thicker became the haze over the swamp and by nine o'clock the mud exposed to the rays reeked. The boys walked as near as possible to the mangroves to avoid the sun's rays, but the shade narrowed slowly and by eleven o'clock had disappeared entirely. By that time Jimmy had relieved Fred of his sack four or five times.

"Can't you take it again for a while, Fred?"

Jimmy turned about. He had thought Fred was following closely, but he was a hundred feet behind bent over a mangrove limb.

"I'm all in, Jimmy, I don't think I can——"

"Cut out the thinking and walk! I'll carry both all the way, and you sure can make it with nothing to carry." Jimmy's tone was angry, but it softened as he went on: "Forget you are tired, forget you are thirsty; get down to business; just say you'll do it, and feel that you mean what you say, and you'll do it."

"I'll try; I'll—oh, I wish I had a drink! I'd give my sack for a drink, Jimmy; for a good, long, cool drink."

Fred went out to where the water was clear—it was up to his shoulders—and took some of it into his mouth. He rinsed out his mouth several times, and in doing so swallowed some water. He did not know it was the worst thing he could have done, and that many a person had been maddened by trying to quench his thirst with salt water.

By two o'clock Fred was almost raving, and he had still to go more than one-half the whole distance to the viaduct. Most of the time he did not know what he was saying; he had reached that stage where nearly every word he said was "Water?" Urged on by Jimmy, he walked a few feet and stopped again. He was clutching a sack and hanging over Jimmy's shoulder, who almost dragged him along.

Suddenly Jimmy saw smoke curling skyward from behind a neck of mangroves two or three hundred feet away.

"Look Fred! Somebody's there, and maybe they have water."

Jimmy's surmise was correct. They found two men seated beside a fire on a dry mound of mud which was dotted with thousands of fiddlecrab holes. One man was short, thin and slightly humpbacked, and had a face that looked almost fleshless. The bones in it were nearly as prominent as those in a bare skull and the skin resembled greasy brown paper. His fingers were long and bony; his eyes were goggly, like a frog's, and their pupils seemed distended over their irises.

The other man could have given fifty or seventy-five pounds of flesh to the humpback and have had left more than the allowance of an ordinary man. Not that he was fat, for he had very little stomach, but he had a chest, back and shoulders like those that cartoonists draw in picturing a heavyweight fighter. His black, curly hair was

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tangled; his brows met in a bushy tuft between his eyes, and hairs on his neck stuck up over his collar in front and in back. The outlines of the massive muscles in his chest and shoulders showed through his tight-fitting shirt.

The humpback was frying bacon and the other man was making a johnnycake. Beside them was a demijohn three-quarters filled with water.

"Give us a drink!" Fred cried out before he reached the mound.

"What you got there?" the humpback asked Jimmy.

"Er—er—crawfish."

"Ah, Pete, what luck! We'll mince 'em up brown and nice, eh, feller? Dump 'em out."

"Give us a drink first."

"And then you beat it with the crawfish? Ah, no, feller! Be goodlike. Give us a couple and you can drink as much as you want."

"Let 'em have a drink anyhow, Syl. I don't like 'em much nohow."

"Aw, you shut up, Pete! I do like 'em —see! Who's running this ranch anyhow? If they're too mean to give us a couple of crawfish, we're too mean to give 'em water. That's fair, ain't it?"

"Whatever you say, Syl. I didn't mean nothing." Pete, the giant, appeared completely dominated by the humpback.

"If we had crawfish, friend," Jimmy told Syl, "you could have them all."

"Well, what you got?"

"Nothing that can be eaten."

"Well, tell a feller."

"It wouldn't interest you in the least."

"I'm interested, you bet! It must be something good or you'd tell a feller right away."

While Jimmy and Syl spoke, Fred's tongue was running out and going back into his mouth, like the tongue of a dog panting.

"Tell him, Jimmy!" Fred cried. "I'll die if I don't get a drink in a minute. They're doubloons!"

Syl smiled, showing his long, tobacco-stained teeth. And then he said "Ha ha!" in the tone one uses when he catches somebody in a lie.

"You mean Spanish doubloons? Could they be some of Pill Pancho's? Where'd you find 'em, feller?"

"Up at Sugar Loaf," Jimmy replied.

"Oh, no, you didn't, feller! Me and Pete knows too much about Pill Pancho and *El Diablo,* and we been digging for them doubloons many times, eh, Pete?" Pete nodded. "You know, Pill Pancho used to give pills to men he caught, which made 'em sleep and never wake up. And he buried the doubloons on the bay side, 'cause his ship couldn't come inside, and so it couldn't be Sugar Loaf, feller. Where'd you find 'em?"

"Snipe Point Beach," Fred answered.

"Ah, that's better, feller! With so many doubloons, I could lie too. Let a feller see what they look like."

"Is that necessary, too, before we get a drink?" Jimmy asked.

"Oh, yes, *chico!*"

"Then we'll go without a drink."

"No, we won't, Jimmy! Gimme my sack," Fred demanded, and when he got it he took a handful of doubloons and gave them to Syl.

"Ah, they're still a little brightlike!" Syl turned to Pete, who showed very little interest in the doubloons. "How much this water worth to us, Pete?"

"Whatever you say, Syl. The johnny's ready."

Syl rubbed the side of his nose and tittered. "You put on the johnny, Pete. I'll take a drink." Syl drank and then tore a handful of wicker off the demijohn. "Looks good, eh, feller?" He walked up to Fred and shook the demijohn in his face.

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"A couple of hundred doubloons for all both of you want."

Fred snatched at the demijohn, but Syl stepped back and growled: "Don't get funny, feller, or I'll make Pete chuck both of you in the mud. You can do it, eh, Pete?"

"Easy, Syl."

"I'll give you two hundred," Fred declared.

Syl chuckled slyly, rubbed his nose again, and doubled the price. Fred agreed again, and again Syl doubled the amount. Jimmy was so provoked he was tempted to spring upon Syl and grip him by the throat, but Pete's bulky form intimidated Jimmy.

The delay in getting the water set Fred nearly crazy. He yanked off his coat, tore open his shirt and pulled his hair, while he circled around Syl, who was seated beside the demijohn, smiling blandly. Pete, at Syl's direction, stood up and rolled up his sleeves, disclosing huge forearms, covered with long hair, and huger muscles.

"If one of you gets gay, I'll break you over my knee. Come on, both together!" Pete crouched, ready to grapple.

Fred was cowed. He stopped in front of Syl.

"Tell me how much you want and you can have it."

"Both sacks."

"You can have mine. Give me yours too, please, Jimmy."

"Nothing doing! I'm going to keep mine, water or no water."

Fred pleaded till his tones slowly became sobs, but Jimmy still refused. Fred stopped pleading abruptly, his eyes lighted up, as though some thought had pleased him, and he whispered into Jimmy's ear. Jimmy nodded.

"We'll give you all the doubloons for all the water," Jimmy said to Syl.

"Don't try any dirty business, whispering, feller. I won't be responsible for what Pete does when I start him going."

"We won't; I swear we won't. Take the sacks; give me the water."

Syl looked into the sacks, ran his fingers through the doubloons and took out some and examined them before he gave the demijohn to Jimmy.

Fred grabbed the demijohn from Jimmy but Jimmy had to help him keep it up to his mouth. He drank so long he had to gasp to catch his breath when he took down the demijohn.

"Drink some, Jimmy, and let me have it again when you finish."

Both drank four or five times. When they got through, Syl was breaking the johnnycake into quarters. He put slabs of dripping bacon between the layers till he had four thick sandwiches.

"Feller," Syl said, "I'll show you I'm a good 'un and give you a hunk of johnny and bacon."

Jimmy and Fred drank more water after they had finished eating. The salty bacon made Syl thirsty also, and, sitting on the sacks of gold, he smacked his lips and said to Jimmy, "Feller, you ought to give us a drink for the johnny and bacon we gived you."

"Nothing doing! This water cost us about a dollar a drop, and we'll sell it to you at the same rate—wholesale."

Syl's "Ha, ha!" was good-humored. "You can keep your water, feller. We can go without it till we strike Boca Chica, eh, Pete?"

"Easy, Syl."

"You some mule, eh, Pete? You can lug both sacks, eh, Pete?"

"Easy, Syl."

When Pete, followed by Syl and Jimmy and Fred, had walked toward Boca Chica an hour or so, Syl said he could not go any further. Several times before that he had

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told Pete to walk slower, because the pace was too much for his weak, bony body. Mosquitoes, too, had bothered him. The smoke on the mound had kept them away before, but just as soon as they set out on their journey the insects swarmed after him and the others.

"Let's rest, Pete. My leg's breaking."

"I can lug you on one shoulder and the sacks on the other, if you say so, Syl."

"Ah, you're a good old mule, Pete! We'll do that."

Night came on—night, with its heat, its close air, its stinging sandflies and mosquitoes. Jimmy and Fred, though relieved of the golden burden, suffered more than they had the night before, because Pete, tormented by flies and mosquitoes, pushed madly through the mud, with Syl and the sacks on his back, and rested but twice. When morning came, Pete was not only worn out, but was famished for water also. Syl was so cramped from hanging on Pete's back that he could hardly stand up when, at daybreak, Pete put him down for the third time. And Syl, too, wanted water. His upper lip was curled up and the skin on it was dry and cracked. Every now and then he ran his tongue under his lip to try to moisten it.

"Let's be goodlike, feller, and share up fifty-fifty. I'll give you one sack back for two good drinks for me and Pete."

"Nothing doing again! Give us back both sacks, less two hundred, and you can have all the water."

Syl turned to Pete. "Take me up, Pete, and go on. Let's fool 'em. We can make it; we'll soon reach the road."

Pete, grumbling and cursing, pushed slowly through the mud. Suddenly, he stopped, let Syl down, and said to him:

"Hold 'em. I gotta get water."

He gave Syl the sacks and Syl fell sprawling into the mud. Pete picked him up with the sacks and went to a mangrove. He put the sacks between roots and Syl leaned against a limb. Then Pete started toward Jimmy.

Jimmy pulled his bowie-knife from its sheath. "Come on, and I'll sink this to the hilt in you! You put one over on us when we were nearly dead for a drink, and we're going to get back at you."

Pete looked dully at the upraised knife and blinked. The long blade, with its two-edged point, overawed him and he turned back.

On and on they went, slower and slower. By noon Pete began to fall down every few hundred feet and he and Syl and the sacks were coated with mud. After one of his falls, Pete struggled to his feet, turned about and stared at Jimmy.

"Water, Syl! I want—I gotta get it—I gotta, Syl; I gotta! Give 'em back—give—give 'em—I gotta get it."

"Try little longer, Pete. It's only couple of miles."

Pete struggled on, begging Syl to give back the sacks, while Syl urged him on. Pete walked sidewise, wider and wider, and then in semicircles. Still Syl urged him on. Finally, he stopped at a mangrove, and unburdening himself of Syl and the sacks, yelled out:

"Stab me, stab me! Water! I gotta—water!"

He staggered toward Jimmy and Fred, but Jimmy did not pull out his knife. Instead, he and Fred backed away as Pete slowly approached them.

Pete tried to quicken his gait, but it was a sorry attempt. Down into the mud he pitched, got up and pitched down again.

"Water! Gi' me—go ahead, stab me! Go—water!"

The cries aroused Syl, who looked blankly at Jimmy and then started toward him. He swung his skeletonlike arms from side to side, fell into the mud, got up and fell again, and all the while he was moving

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his tongue sidewise under his mud-smeared lip.

"Uh — uh — water! Uh — uh," he groaned.

"Can we have the sacks back?" Jimmy asked.

Before Syl could reply, Pete, who, in his famished state, was no longer thoughtful of Syl, roared out:

"Take 'em! I'll kill him, if he don't let you take 'em."

It was unnecessary for Pete to make that threat, for Syl said, in a tone that was little louder than a husky whisper:

"Take—uh—water!"

Jimmy put the demijohn between the roots of a mangrove twenty-five feet or so ahead of Pete. Pete and Syl floundered toward it, and Jimmy and Fred hurried to the mangrove where the sacks had been left. Jimmy took several handfuls of gold out of a sack, tied it up in a handkerchief, which he fastened to a limb, and called out:

"Syl! Syl! Here's some doubloons for you and Pete."

Syl glanced back and nodded.

"After all, Jimmy, we won't have to have them arrested in Key West to get it back, as I told you we could do. I know how they felt. If I'd 'a' had all the money in the world, I'd 'a' given every cent of it for a drink when I met them yesterday."

Jimmy and Fred, fearful that Pete might follow them, looked back often, but every time they looked they saw Pete and Syl, squatting in mud above their waists, leaning against the roots of the mangrove where Jimmy had left the demijohn.

The boys staggered up to the shack at the Boca Chica viaduct in time to board the five-three train for Key West, and Pete, with Syl on his back, stopped at the viaduct five or six hours later to sleep there till morning.

Go To It

By David Stevens

Old King Alexander,
'Way back in olden days,
Was an A-One commander,
And poets sing his praise;
When he had to fight a battle
He'd start without delay;
His motto was "Go to it!"
And it's just as good to-day.

Good Queen Isabella,
She tho't the earth was flat,
But Columbus could tell her
A better yarn than that;
When they said he'd never get there,
And tried to block his game,
He kept on going to it,
And he got there just the same.

When old Davy Crockett
Took down his ancient gun,
He would load it and cock it,
And half the job was done;
For the coons in all the gum-trees
Knew Davy's great renown
For always going to it,
So they'd hurry and come down.

Go to it! Go to it!
Don't say it can't be done;
Go to it! Go to it!
There are battles to be won
And you can tell the world you'll do it!
Take your little car
And hitch it to a star,
Then go to it and you'll do it, never fear!

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FUNNY STORIES

"Jack's Bandit"

Jack foiled him but met a big surprise, which makes a very funny story as told by Ed. L. Carson.

"The Mince Pie Mystery"

Wilbur S. Boyer tells how Johnnie Kelly acts as detective in a domestic crisis.

"The Great Marble Marvel"

And how he failed to play for the championship but won another contest, affords many a laugh as described by James F. Taylor.

"Ain't the Movies Educational?"

Z. Hartman shows how Newt Collins, the grocery clerk, made use of information gleaned from the silver sheet.

"Think and Grin"

Old Idle Five Minutes with his satchel of jokes unpacked by Frank J. Rigney, his friend.

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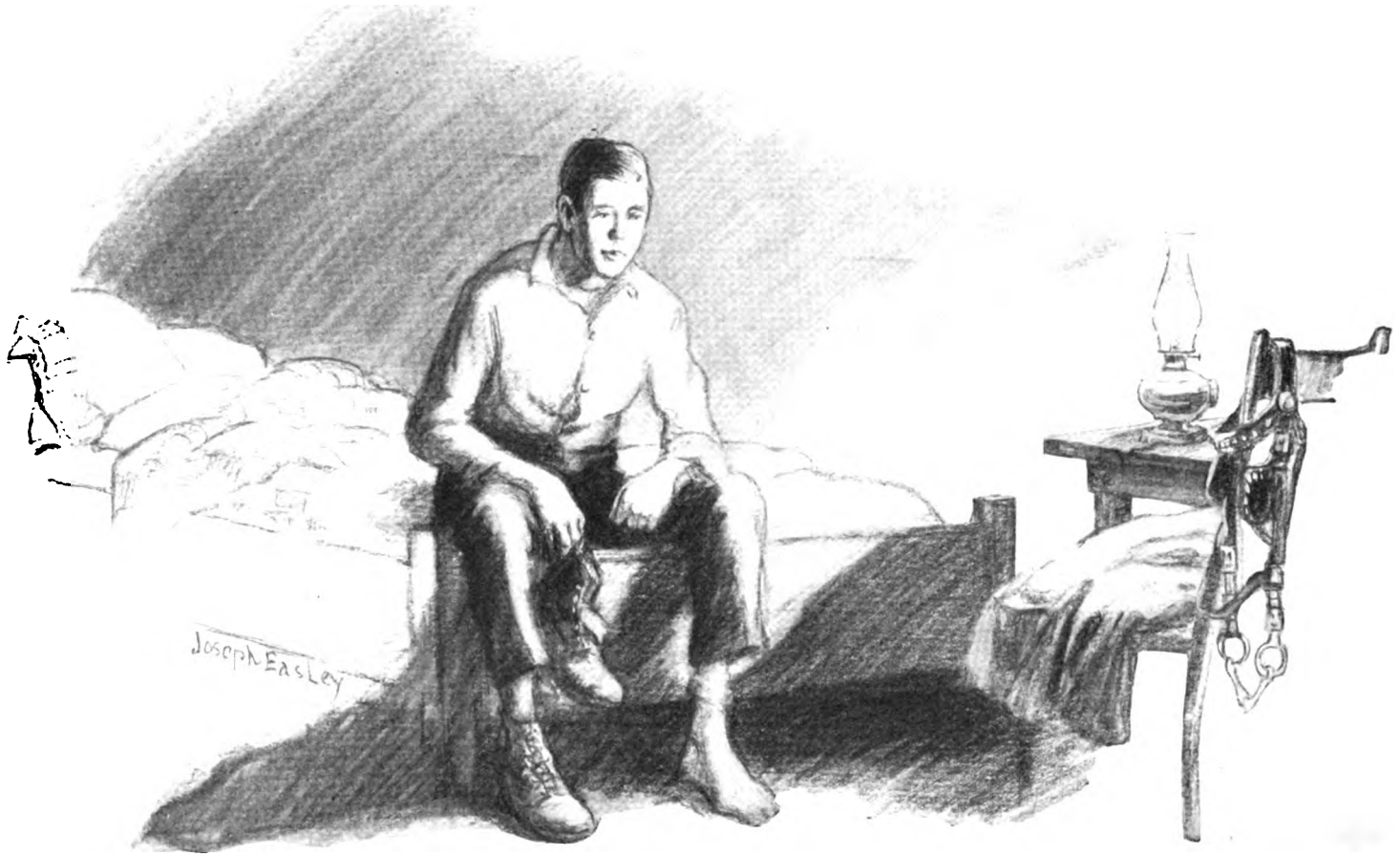

As he sought his bunk that night Jack smiled in the darkness

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Jack's Bandit

By Ed. L. Carson

Illustrated by Joseph Easley

"JUMPING Gartersnakes!"

Paymaster Wendell came into the timekeeper's office on the Lindley Construction Company's works on Runaway river, slammed his satchel on a table and uttered his favorite expletive in a tone which caused the bookkeeper to demand in astonishment!

"What's the matter now?"

"Played the bonehead for fair, that's all," was the reply. "I came away from town and left the most important part of the payroll money behind."

"Well, it will be there when you get back, won't it?"

"That's not the trouble. We promised that two hundred men who came here from Seattle to refund their fares if they stayed on the job for sixty days. The time is up to-day and I had the money all seprate, each fellow's five spot in an envelope, so that when paying off to-night I could hand it over with the rest of his money and avoid all confusion. I packed all the envelopes nicely in a box and then came away and forgot it. If those fellows see me going back to the city they will quit in a bunch, for some sneak has been circulating reports that the company is none too sound financially. If they don't get it to-night they will come in for it to-morrow morning and will get back to work in just about one week. We are as close to our time limit for the completion of this job as we dare run, and any real delay in completing this canal in the next two weeks means a forfeit of fifty thousand dollars, according to the contract."

"And the new superintendent just got here this afternoon about four o'clock," broke in the timekeeper, who had entered the office in time to hear the dismal tidings.

Again the paymaster made a groaning appeal to his favorite reptile, but no inspiration seemed to come from that source.

"If there was only some one we could send," hazarded the timekeeper. "The sticker is that the only horse that could make it in time to be of any use is your mare, Maud, but there is no one here who can handle her except yourself. I know she would string me all along the road if I tried to drive her, and all the other horses are hopeless."

"Jack Ferris can do anything he wants to with her," said Mr. Wendell thoughtfully.

"Who? The corral-dog?" using the title bestowed in the west on the man in charge of the stables. "Why, he is only a kid."

"He's an old-fashioned baby just the same and I have a good notion to take a chance on him."

"But Mr. Wendell," protested the timekeeper, "there have been a dozen hold-ups on that nine-mile stretch between here and the city in the last month, and the robber has never been caught. They say he works with a bicycle and has a different accomplice every time, and just think what a nice, handy sum a thousand dollars, all in fives, would be to negotiate."

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"Even at that, a boy would be less liable to attract suspicion than a grown person. I, for instance, would be a marked man and anyhow, it is a groundhog case, so here is where I dig in. Send for Jack."

Jack Ferris was a western product about sixteen years old and well developed for his age. In response to the summons he came into the office with an air of self-reliance which might easily have been mistaken for impudence. Hastily the difficulty was explained.

"Sure I'll go," he said, cheerfully. "I can make the trip in two hours or a little better, and you can stall off the Seattle bunch till I get back. Tell them they are to be paid last so as not to get them mixed with the other bohunks. Don't worry about anything that hold-up guy can do," he added as he patted a bulge in his shirt under his left arm. "The night he holds me up is positively his farewell performance."

"Do nothing to attract attention," begged Mr. Wendell, "and above all take no chances. Let the money go if you have to and remember that the best way to handle trouble is to dodge it."

"And the best way to meet trouble is to be prepared for it," grinned Jack as he started for the door.

Jack Ferris was a lover of horses and none knew this better than the animals under his charge. Mr. Wendell's mare, Maud, no matter how fractious she might be with any other than her master, had come to know the boy who soothed her restlessness with nice noises and pleasant pats and who left her with a farewell rub and an apple, so that when he had her hitched to the light buggy (for this was before the days of the auto), she seemed as much at ease as she would have been with her regular driver.

The road from the camp, where the big power canal was being constructed, to the city, which was to be supplied with the electricity there generated, led through a growth of scrub cedar for about half a mile to where it joined the main highway to town. It was not yet dark and as he turned from the side road Jack was not surprised when he was hailed by a respectable looking man who asked him to give him a lift. Common courtesy demanded of Jack that he accede to this request, but before they had gone far he became obsessed with the feeling that he was being studied if not watched. The stranger made an attempt at conversation by stating that he had been suddenly called to town, but somehow this explanation did not ring true. Unconcerned, however, Jack reflected that nothing could happen before he got the money. On the return trip was the time when he would be required to keep his wits about him and take no chances.

A few blocks from the city offices of the construction company the stranger asked to be let out, saying that here was where he wished to stop. This Jack willingly did but, as he stopped the rig, he recalled that, when they first met, the stranger had told him that his errand lay in a different direction. Jack made no comment on this. He was getting rid of the fellow which was all he wanted, so, driving on to the office, he tied his horse and went inside where an assistant cashier was waiting for him as instructed by a telephone message from Mr. Wendell at the works. The box containing the precious envelopes was wrapped up in an old newspaper to make it as inconspicuous as possible, but when Jack returned to his horse he was greatly surprised to find his passenger of the incoming trip comfortably ensconsed on the seat of the buggy.

"I finished my business rather sooner than I expected," was his greeting, "and took the liberty of imposing on your good nature for a ride back to the camp."

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"That's all right with me," growled Jack, which was not exactly the truth. "May as well have company, I suppose." But to himself he added, "You start anything, old timer, and you can leave it to me to finish it."

Carefully he arranged the lap robe, giving himself a liberal share, for the month was October and with the dark came chill. Then, as they left the lights of the city, he slipped the hard object which had been distending his shirt when he talked to Mr. Wendell, from under his arm into his right hand, driving easily and skillfully with his left. The mare lived up to her reputation as a roadster and threw the miles behind her with a light, swinging trot which would have excited the admiration of the most amateur of horsemen.

But Jack was not thinking of his horse. His companion's peculiar actions all passed in review and, while nothing in his attitude betrayed his uneasiness, he was certainly sitting very light and watching closely for any sign or sound which might be a signal to an accomplice along the road. The stranger seemed to be entirely at ease, however, and even tried to start a conversation in spite of the boy's sullen and preoccupied attitude. Only once did he succeed in arousing any interest in his remarks. This was when they were passing along a part of the road with trees on both sides and where the darkness was doubled in intensity and he remarked:

"This would be an ideal place for a hold-up."

"No chance," retorted Jack with more warmth than the occasion seemed to demand. "Anybody with a lick of sense would be looking for it in just such a place as this and would be right on the watch. No, sir, the place for that kind of thing would be right out in the open."

The stranger chuckled and agreed, but Jack's right hand clenched tighter on the object it held and the set of his jaw told only too plainly that Mr. Wendell's order to give up the money rather than take any risks would never be obeyed. Nothing further was said nor did any other incident mark the remainder of the ticklish trip, but when they drove into camp a quarter of an hour later and Jack jumped from the buggy to run into the office with his precious parcel safe and sound, leaving the stranger to tie the horse, his right arm was so stiff that it seemed as though it would break before it would bend, while on his forehead the perspiration was standing in great beads regardless of the coolness of the evening.

"Good boy, Jack!" cried Mr. Wendell at the sight of him and his burden. "Had no trouble after all, I suppose," and then catching a closer glance at the boy he added, "or did you?"

"I don't know whether I did or not," was the somewhat mystifying reply, and in a few low, earnest sentences he told the story of his passenger.

"I've seen that Indian before," he concluded. "I saw him hanging around the works this afternoon and sized him up as a bad man to have trouble with. Just the same, he would have had the worst end of it if he had started anything, for I drove all the way from town with this," producing a very businesslike looking automatic pistol, "within an inch of his gizzard. He must have felt it punch him in the ribs once in a while when the buggy hit a rut. Wanted to know why I drove with one hand and I told him you always drove that way and I was humoring the mare. Coming through Clark's Bush he made a dizzy crack about that being a good place for a hold-up. If he had so much as coughed I would have cut loose, knowing that at short range like that I would blow him out of the buggy while the mare would streak it so fast when she heard the shot that no bullet ever fired could catch us. I felt perfectly

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safe, but he was sure flirting with the coroner's jury when he made that break and—gee whiz," pointing to the stranger who had entered quietly and had been listening with an air of keen interest, "there he is now!"

As they looked at the newcomer there was dead silence for a moment. Then both Mr. Wendell and the timekeeper broke into roars of uncontrollable laughter, while Jack, with his automatic still in his hand, looked from one to the other in astonishment. When breathlessness demanded comparative silence, he demanded:

"Well, what's the giddy joke?"

"Why, Jack," gasped Mr. Wendell, "that is Mr. MacArthur, the new superintendent of construction. He just got here this afternoon."

"That being the case," retorted Jack, as he put away his gun, "right here is where I lose my job."

"It is all true," smiled the new official, coming forward. "When I learned of the plan to send you over that robber-infested road alone with all that money I made up my mind to go along. Before we were halfway back I was convinced that I had taken all my trouble for nothing, for I now believe you capable of transporting a bank across the continent. If I had known, however, what that hard object was that kept digging me in the side I would have explained much sooner. As it was I wanted you to carry the job through without my help. You will certainly lose your job as stable boss for what you did to-night. I'm going to make it my first business with this firm to put a boy like you right where he belongs."

As he sought his bunk that night Jack smiled in the darkness, and remarked to himself:

"That means to get a bunch of books and start studying, for nobody knows how much trouble I may run up against on this new job and the best way to meet trouble is to be prepared for it."

The Cantapiller

By F. J. P.

There are forty thousand kinds of things that crawl and fly and creep,
That chase a fellow while awake and bite him in his sleep,
Hornets, ants and bumblebees, centipedes and bats,
Spiders, daddy-long-legs and striped buff'lo gnats,
Skeeters, fleas and chiggers, no-seeums and the rest,
But have you ever bumped against the cantapiller pest?

It's a big, two-legged creature with a dish-rag for a spine,
A wish-bone for a breast-bone and a taste exceeding fine
For keeping out of sight and sound of every kind of work,
Oh, the cantapiller can'ts all day from morning until night,
He can't do things in darkness and can't do them in the light;
He can't build fires or cook his grub, can't keep his things in place,
Can't follow trails or do first aid—can't even wash his face!
I'm sick and tired of can't, can't, can't, so sick that—say, by gee!
This canting cantapiller pest CAN'T *go to camp with me!*

An expert with excuses and a cracker-jack to shirk;
It is fun to crack a flea or fly, but Oh, what ardent zest
Could I employ to pulverize the cantapiller pest!

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The Mince Pie Mystery

By Wilbur S. Boyer

Illustrated by Frank Rigney

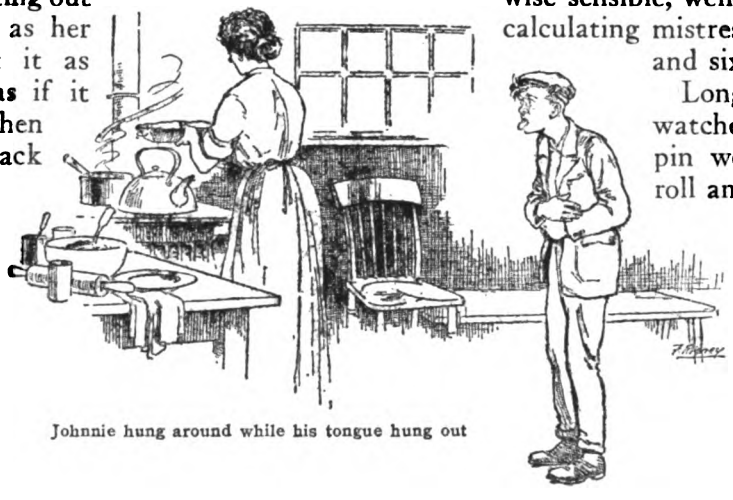
"THERE'S just one thing I'm 'most crazy for," admitted Susan Spreggs, as Mary, the cook, staggered into the kitchen from the cellar with a big stone crock; "and that's a thick, old-fashioned mince pie."

The baked beans were shaken from Johnnie Kelly's fork half way to his mouth and his eyes grew big with longing as he watched his employer remove the cover of the crock and sniff the mysterious contents rapturously. Johnnie sniffed, too. He was far away from it, but he imagined he detected the delectable fragrance. The other farm hands having finished supper early while Johnnie was helping Kaiser, the dog, catch a woodchuck, he was now having his meal alone.

"None o' your flat-chested, skimpy hokus-pokuses for me!" continued Miss Spreggs, jabbing into the mess with a giant spoon, lifting out a wad as big as her fist, gazing at it as affectionately as if it were a baby, then letting it fall back into the pot; "give me a real mince-meat—currants, suet, prime beef, citron, raisins, and brown sugar, let me put in the cinnamon, nutmeg, mace, cloves and allspice, and I won't forget the cider, and not too much apples, and I'll turn out a mince pie that will tempt the very dominie himself to steal."

Johnnie knew it was up to him to be extra obliging. Hopping to his feet, he set about being useful with great show of alacrity and willingness. The hot-water tank on the stove would have been filled to the brim without thought of allowance for expansion by heat, if Mary had not interposed. The woodbox never before held so much hickory and birch as it did that night, nor was there ever more noise made in filling it. Every time Johnnie came in with an armful, he fairly trotted; and his puffing was painful to hear—had any one been attentive.

But Susan Spreggs was in another world—the world of mince pies. Undoubtedly mince pie was an obsession with the otherwise sensible, well-balanced, cold, calculating mistress of a hundred and sixty acres.



Johnnie hung around while his tongue hung out

Longingly Johnnie watched her rolling-pin work the crust—roll and turn, roll and turn, roll and turn. He wondered if she would keep on rolling and turning until he grew whiskers.

"What's she

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punishin' it for?" he asked Mary in a wary aside.

"That makes the crust flakey so's it melts in your mouth," explained Mary in the same guarded tones, though they could have shouted, so rapt in her task was Susan Spreggs.

"Only one pie?" groaned Johnnie from his position by the Brobdingagian dish-pan, where he was—oh, so generously!—performing the unusual task of wiping supper dishes for a farm family of fifteen.

"Ssh!" warned Mary, fearful that her mistress would overhear. "This ain't mincepie season; but once in a while she gits one of these longings, and she don't waste precious mince makin' a slew o' pies for the hands. But we'll git a taste, if we don't cross her."

"Oh, boy!" gurgled Johnnie.

Miss Spreggs finished putting a ring of Puddin'-head-Wilsons around the edge with her thumbs and held up the monster confection in both hands to admire.

"A mince pie, to be right, must stand over night and be eat the next day," she pronounced with the finality of an expert.

"Jist one o' her notions," whispered Mary; "but when she gits them spells, there ain't no changin' her."

Johnnie's heart sank. He had been counting on a generous segment to keep him from starving before he curled under the covers for the night. He buoyed himself up, however, with anticipation and went to bed early so that the morrow would come sooner.

And when, next morning, he warmed his woolens on the kitchen stove-pipe that came up through his room, and hurried his dressing in order to get downstairs close to the fire—for it was a cool morning—he walked in upon a much agitated Susan Spreggs and a fearful Mary.

"John Kelly!" was Miss Spreggs' greeting; and he knew there was dire trouble. There was always hope when he was "Johnnie"; but "John" was a sure sign of unrelenting hostility.

"Yes 'um," responded Johnnie.

"Did you come into the kitchen since you went to bed last night?"

"No 'm."

"Honest injun—hope to die—cross your heart?"

Johnnie performed the required solemn assurance.

"What's matter?" he asked innocently.

"The mince pie is gone!" answered Mary in husky awe.

"Gone?" repeated Johnnie, collapsing into a chair in genuine surprise.

"Yes, gone," reiterated his employer, boring him through with her snapping black eyes. Under other circumstances Johnnie would have found those eyes pleasant to look at, for Susan Spreggs was comely, albeit inclined to masculinity of features. But now those eyes were like a pair of gimlets. Nevertheless, Johnnie's eyes did not drop.

"Ain't that dangerous for me weak heart!" he sighed, holding both hands

"Gone?" repeated Johnnie, collapsing into a chair in genuine surpise

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against the pit of his stomach. "You'd ought of broke the news easy."

"Weak heart! you young rascal. If I thought it was a weak will, I'd skin you alive and nail your hide to the barn door as a warning. . . . " She broke off and swallowed nervously several times. "No, Johnnie, I'm sure you didn't take it. It ain't in you."

"You bet it ain't!" groaned Johnnie. "I wisht it was."

"I didn't mean the pie; I meant it ain't in you to play such a contemptible trick on me."

"You got me right," agreed Johnnie. "But I'd give two lolly-pops and an all-day sucker if I could sleuth out. . . . Say! wouldn't it make a crackin' good story? 'The Marvelous Mystery of the Missing Mince, or Who Swiped the Pie!' "

"It ain't a laughing matter," snapped Miss Spreggs icily. "Howsomever, I'm not going to be done out of my pie."

Mary, Johnnie, and Miss Spreggs held an impromptu meeting for the next two hours. Every person who worked on the Spreggs farm or who lived within five miles was suspected in turn. But at the end of the confab, the mystery was still unsolved.

Johnnie took every opportunity to put a prying eye into the kitchen during the day, but there were no signs worth noting until after supper. Then, with the same sedate ceremony, the same doting care, Susan Spreggs built another mince pie, the very twin of the dear departed, and shoved it into the oven, and stood by with stoic patience until it was done to a mellow brown. And Johnnie hung around, while his tongue hung out, and he'd be hanged if he could surmise who had eloped with Miss Mince Pie, the elder.

"Whoever the pirate is, he don't get a smell o' this one!" declared Miss Spreggs vehemently; whereupon she locked it in the pantry, tied the key on a string, and suspended it around her own neck. "And notice," she continued with grim satisfaction, "it's a Yale lock and there ain't no way of knocking the pins out of the hinges on that door. Any one who gets that pie, will have to have this key or else use a crowbar."

Next morning when Miss Spreggs opened that door, she found no pie.

"Honest to goodness, I believe it's an evil spirit!" moaned poor Mary.

"Hope that spirit gets a be-back-ache, then!" wished Johnnie soulfully.

"G'long Mary!" scolded her mistress, "you ain't showin' no more sense 'n an English Psyche Research Lord. If the departed-from-this-life ain't got nothing more edifying to do than tip tables and steal my mince pies—though I do reckon them pies is fit for the gods—then they're lying when they dribble about how they're so happy!"

This day the entire farm force was called to account and a rigid cross-questioning resorted to in the effort to find a clew. Had any of them been guilty, there is little doubt the joke would have been too good to keep, and signs would have been discoverable during the ordeal through which Miss Spreggs put them. Yet when it was over, the solution was no nearer.

"Say, Miss Spreggs," suggested Johnnie when he succeeded in intercepting his boss by herself. "How about Mary?"

"Johnnie, I'm astonished!" cried the startled Miss Spreggs. "I'd as soon suspect myself."

"Oh, I didn't mean she would," he hastened on, "but——"

"Mary hasn't the nerve, Johnnie. You know she's afraid to go downstairs after we've all gone to bed, even if I give her a light to carry."

"I'm going to sit up and watch to-night," promised Johnnie.

"I wish you would," cried Miss Spreggs.

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"I tried to, last night; but I fell asleep. I've been uncommonly sleepy lately, anyway. Around nine o'clock I'm so drowsy I simply can't stay awake. I was sitting in my rocker by the window when I woke up this morning and I felt oppressed and logy all day."

For the third time Miss Spreggs made a mince pie. And with the persistence of her peculiar obsession she made it in the evening and locked it this time in the steel safe set in the wall, where she kept her valuables and papers.

"There!" said she. "I'm the only one that knows that combination. I'll have my mince pie the way I want mince pie, if it takes a lifetime."

At half-past twelve that night, when Johnnie in his nightshirt, but fully dressed underneath it except for his boots, was pinching himself to keep awake as he sat huddled by the fast-cooling stovepipe, he heard the "pat-pat" of slippered feet in the room below.

"Ha, ha! The villain approaches!" he told himself dramatically.

Stepping stealthily to the stairs, he crept down until he could peek into the lighted kitchen.

There, in a boudoir cap, a dressing gown and a pair of slippers, was Susan Spreggs herself. She had placed her lamp on the table and was twirling the knob of the safe.

"The stingy thing!" thought Johnnie, and without hesitation he tip-toed downstairs, and while her back was turned he quietly drew up a chair and seated himself at the table, which was set, as usual, for breakfast.

Miss Spreggs took out the pie, closed the safe, and came over to the table with the pie. Johnnie said nothing. There was a peculiar, vacant smile on the woman's face. Johnnie grinned and winked at her.

Not a sign of recognition came into her eyes, which seemed bright, but devoid of luster.

She proceeded gravely to cut the pie

She seated herself and proceeded gravely to cut the pie into eighths. When she had carefully placed a giant piece of pie on the plate before her, Johnnie unobtrusively removed it to his own place and substituted his empty plate.

Evincing no surprise on finding nothing on her plate, Miss Spreggs placed another segment on it, then arose and went to the pantry.

Johnnie was a bit nonplused at her actions. With determination to prove the truth or fallacy of a suspicion that had entered his head, the boy lifted the top crust of Sookie's portion of pie and spread over its in'ards the entire contents of a salt cellar.

Miss Spreggs returned with a pitcher of rich milk. When she had poured out some for herself, Johnnie, without making his motions too rapid or too conspicuous, helped himself to a tumblerful, finished it in one try, and filled again.

While he enjoyed his own piece of pie,

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he watched expectantly as Miss Spreggs attacked her share. While he stared in amazement, she made way with her piece and its generous flavoring of salt, smacking her lips in appreciation. When the last mouthful had vanished, to be washed down with milk, the strain was too much for Johnnie Kelly. For the first time, he spoke.

"Shades of nightmare!" he blurted out. "You must have copper linin' to your stomach!"

Miss Spreggs gave a queer, choking gasp; she clutched her robe at the throat; her eyes, at first startled, gradually lost that unnatural stare. She looked around dazed, contemplated dully the empty plate before her, then turned a troubled, shamed looked upon the grinning Johnnie.

"What . . . ? Why . . . ?" she questioned in mystification.

"That's two and a eighth mince pies you've tucked under your belt in three nights," chuckled Johnnie. "Some record, *I'll* tell the world!"

"You mean to say . . . ?" She paused, her hand to her head. All the natural luster was back in her eyes. She now had complete possession of herself. "Johnnie," she continued gently, "I used to walk in my sleep when I was a young girl—not so long ago"—(this last was added hastily), "but I thought I had outgrown it. My craze for mince pie, though . . . Was I . . . ?"

"You sure was!" laughed Johnnie heartily. "I've heard of such things, but I'd bet it was all fake if I didn't have such good proof now." He was thinking of the salt. He concluded, however, that telling her would contribute nothing to Miss Spreggs' peace of mind or peace of stomach.

Miss Spreggs smiled wanly, sheepishly. She was overpoweringly tired. Reaction was setting in.

"That's why I was so distressed all day yesterday," she decided. "Eating a whole pie in my sleep doesn't give any satisfaction. Johnnie, you're a mighty good boy. Eat all you want now, then lock up the rest in the pantry for the three of us tomorrow, and you keep the key until morning. I must be protected against myself."

Whereupon Miss Susan Spreggs, with heightened color and a weariness of limb that told of the effect of somnambulism upon her system, left for her room.

A little later Johnnie Kelly, with a grunt of satiated appetite, climbed into his own feather-bed, under his well-stretched skin.

But he had forgotten to blow out his candle, and it was just out of reach. The mince pie told him not to get up.

"That's always the way with us scientists," said he regretfully, catching hold of a boot by one of its straps. "We always t'ink o' what we might have did after it's too late. Now I'll never know what would of happened if I'd used the pepper!"

He swung the boot with careful aim. The heel landed fairly on the candle flame —and he was in blessed darkness.

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The Great Marble Marvel

By James F. Taylor

Illustrated by Geo. Gillett Whitney

"WHAT'S your name?" inquired Zip Martin of the newcomer.

The newcomer put down his grips and adjusted a pair of horn-rimmed spectacles before replying.

"Is it any of your business, may I ask?" he returned.

"He's a nasty bird, ain't he?" Zip asked Squirrel Brown. Then he turned to the newcomer.

"I'll tell you why I asked you," he said. "We're short of good football material this Fall, and I want to get a line on all the new arrivals. I wanted to give you a chance to get on one of the teams—maybe the 'varsity. Now you'll admit I have a right to ask your name, ain't I?"

"Pardon me, pardon me, gentlemen," replied the new boy. "I was told to beware of bullies, and your abrupt question merely put me on my guard. My name is Lionel Deveraux. But I fear I can be of very little service to you in the way of football. You see, I was brought up with eight sisters, and mother never allowed me to play with any one else. Indeed, it was only on the insistence of my father that I was allowed to come here. I am proficient in no games but Jacks and marbles."

Lionel slipped forward

"Jacks!" groaned Zip. "Ye gods!"

"Eight sisters!" cried Squirrel. "Jump-in' mackerel!"

"You seem surprised," said Deveraux. "Is it so wonderful that a boy has eight sisters?"

"No," replied Zip; "but that he'd live through it. But never mind that; I've an idea." He turned to the Squirrel and winked the eye farthest from Deveraux. "Don't you

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think, Squirrel, that he'd make a good marble champion?"

"He'd make a wiz!" exclaimed Squirrel, falling in immediately with the other's humor. "Say, Lionel, you said you've played marbles?"

"Why, yes; but really, I was never expert at the game, and it's some time since I played it."

"No matter," Zip put in, "you've played it. Now this school sends a marble champion east each year to play Yale, Harvard, and Princeton. This year we have the poorest crop of marble-heads—I mean players—we've ever had. And if some good man don't come out, we'll lose the championship. It means a fine, long trip, and you'll be a hero at the school. How about you?"

"I'd love to!" cried the new boy, "I'd love to! It would prove to mother and my sisters that I can excel in sports other than the gentle sort—such as spelling bees and hop-scotch."

Squirrel Brown snorted and choked and almost collapsed; his face became fiery red, and his cheeks puffed out until they looked as though they were going to burst.

"Your friend seems amused," remarked Lionel.

"No, no," Zip hastened to explain, "he's taken that way very often. He keeps his mouth open so much that he's always swallowing something. What was it that time, Squirrel, a fly or a mosquito?"

"I don't know," gurgled poor Squirrel. "I think it was a bee."

"Well, the tryouts for the marble championship will be held to-morrow night in the recreation room, under Benson Hall," Zip said to young Deveraux. "I'll bring you over there. What hall are you for?"

"Corbin," replied Lionel.

"Fine. It's that yellow building right opposite here. I'll be over for you at seven sharp. Go to bed early and have a good sleep, because you'll need an eagle eye and a steady hand."

"Indeed, I shall," answered Lionel. He picked up his grips and departed in the direction of Corbin; and Zip and Squirrel raced over to Benson to inform their cronies and the school at large that a real mark had arrived at last.

On the next evening the recreation room of Benson Hall was filled. They were ranged round the room in all sorts of vantage seats and every few moments raised three cheers for "The Great Marble Champion." Suddenly Squirrel Brown thrust his head in at the door and shouted: "Can that noise; here they come!" The noise ceased as though a heavy door had shut on it; and presently Zip Martin and Lionel Deveraux—the light shining strongly on the polished glasses of the latter—walked into the room.

Zip held up one hand for silence, and placed the other on the shoulder of young Deveraux.

"Gentlemen," he announced, "allow me to introduce to you Mr. Lionel Deveraux, contender for the heavy-weight. marble championship! He will meet all comers here to-night, catch-as-catch-can, or Marquis of Queensbury rules! Nobody barred but Goat Donaldson; if he was let near the marbles he'd eat 'em! Gentlemen, choose your weapons!"

At this a great shout went up, and loud cries of "Speech! Speech!" Lionel looked at first puzzled, then flustered, and last, highly pleased. He stepped forward and ducked a bow at the howling spectators.

"Fellow students," he began, "I did not come here merely for the adulation that is accorded an athlete; I came principally to drink long and deep of the Pierian Spring that bubbles in the confines of these classic halls; to gather up with reverent hands the jewels that have fallen from the lips of

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Xenophon and of Homer, of Virgil and of Cicero——"

"Oh!" groaned Martin to a neighbor. "Cicero—and me with a condition from last year all on account of that bald-headed old spaghetti gargler!"

"—but," went on Lionel, "I am not adverse to shining athletically as well—if I may."

"Oh, you will, don't worry!" yelled somebody, and there was a tremendous chorus of cheering and hand-clapping.

"Enough!" shouted Martin. "We'll have the tryouts now. This way, Lionel, and the rest of you marble contenders!"

He led them over to the far side of the room where a small circle was drawn on the floor in chalk, containing four pool balls —three placed in the form of a triangle with a fourth set on top of them.

"But these are not marbles!" protested Deveraux.

"Not the sort you are used to," explained Squirrel Brown calmly. "Those are college marbles, and therefore bigger —naturally. Now the object is to take that top ball and throw it at the other three. If you knock them out of the ring, you win. All contenders will have three trials. Remember that this tryout is to pick a man to represent this school; so do your worst! You will throw from a line drawn on the floor, there—" indicating a chalk-line about six feet from the circle.

The first to try was Spud Murphy—a husky, energetic looking youngster who played full-back on the varsity. He threw, and nearly tore a hole in the opposite wall. But he missed the balls altogether—as he intended to do. The next man to take his place at the throwing line was Karakos, a shaggy-maned, black-eyed Greek — the heavy-weight champion wrestler of the school. He too, hurled his ball with the force of a heavy gun, and missed the mark as miserably and completely as had Murphy.

"Your turn now, Lionel!" shouted Squirrel. "These are the only two you have to beat. Keep cool now, and make every shot count."

Lionel stepped up to the line, took off his glasses and briskly polished them with his pocket handkerchief. Then he replaced them on his nose, and measured the distance to the circle carefully and calculatingly. Without taking his eyes from the circle he motioned for some one to give him the throwing ball. Zip picked it up and placed it in his hand. Lionel raised his arm, took a step forward and hurled the ball with all his strength at the circle. It struck the other balls fairly in the center and sent them spinning and bounding about

Where's the Squirrel?"

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the room. The spectators raised a great shout, and Lionel, smiling and bowing, made way for Murphy and remarked that he had had "even better luck than he expected."

On the second trial Murphy and Karakos failed again, and Lionel had only fair luck, for this time he managed to knock but one ball out of the ring. But on the third trial he again sent all three flying out of the circle, while Karakos and Murphy got only two each.

Nothing could equal the satisfaction of the new champion. He bowed and smiled, and accepted congratulations from the howling, stamping mob with the grace and éclat of a king. But in the middle of the riot Zip Martin and Squirrel Brown cut him out and led him off to his own hall.

"You can't keep late hours now, Lionel," explained Zip. "You're in strict training from to-night on. No spreads, no fighting, and no dancing sprees."

"My dear friends," said the elated Lionel, "your advice though sound, is not needed. I am always strict about my diet, I am not argumentative, and I dance only the old classic measures. I doubt if I should be able to find any one that could dance with me."

"Fine!" exclaimed the Squirrel. "You're dog-gone near bomb proof. You ought to make a great champion."

The next morning, before Deveraux had left his room, Zip and the Squirrel called on him. Zip was armed with a tape measure, and the Squirrel with a blank-book and pencil.

"We've come to take your measure for a marble suit," said Brown. "You're going east next week, ole dear, so you'll just have time to get it made. Stand up now, and look your prettiest." Then Brown sat down at the table with his book in front of him, and the point of his pencil in his mouth. "Shoot!" he said to Zip.

Zip passed the tape measure about Lionel's hips. "One pair of marble pants," he sang out. "Thirty-four inches."

"With or without a handkerchief in the back pocket?" asked the Squirrel seriously.

"Better add three inches for a handkerchief," said Zip. "He may need it. It will do to carry perfume in to sniff between rounds. One marble hat," he continued, "eighteen inches. That's the circumference of his bean I gave you last."

"Expanded or contracted?" solemnly asked Squirrel Brown.

"That don't make any difference," answered Zip. "We'll have a piece of elastic put in the back of the hat to allow for that. Also, make a note that his head is very pointed on top."

"Marvelous!" drawled the Squirrel; "marvelous! He must be a mathematician."

"And when shall I have my suit?" asked Lionel when the measuring was finished, "and of what color will it be?"

"What color would you like?" asked Zip.

"What would you suggest?" inquired Lionel.

"Well," said Zip, "something subdued I think; something subdued with a vivid motif running through it. A maroon base with a colorful stripe—pink, say—would be pretty, don't you think?"

"Gentlemen," said Lionel, "I feel that you know best. It seems a little too utter for me, but I place myself in your hands. I shall try to honor it when I wear it."

Zip and the Squirrel tumbled through the door and ran until they were out of the building. Then they fell upon the grass and laughed until they cried.

"Some dumb-bell!" gasped Zip between bursts of laughter. "He knows a great many things and yet he knows nothing. His education has been sadly neglected."

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"Well, it's being attended to now," said the Squirrel, and he rolled over on his stomach and roared out laughing again.

For the few days following his victory, Lionel Deveraux walked on air. He was a hero. Youngsters pointed him out on the campus, and whispered to one another —in hoarse stage whispers, so Lionel could hear them—"That's Iron-arm Deveraux, the great marble marvel." But when Lionel got out of ear-shot they thumped each other on the back and cackled with mirth. Lionel, however, knew nothing of these things, and so they never bothered him. He swelled around the campus like a peacock on parade; he took to reading the sporting sheet of the local paper each morning, and he patronized boys younger than he by calling them, "sonny."

Three days before the time Lionel was scheduled to start east, Zip remarked to the Squirrel that it was time to "wake the great marble marvel up." The Squirrel agreed. A boy named Dolly Grey was selected to do the waking. Grey was the catcher for the baseball team; a small, quick, swaggering youngster, with a habit of biting off his sentences out of the side of his mouth. That same afternoon he met Lionel while the latter was on his way to Science Hall. He hustled up to Lionel and thrust out his hand.

"Shake," he said. "I want to shake hands with the great marble marvel." Before Lionel could take the outstretched hand, however, Dolly withdrew it and started as though with recognition and surprise.

"Why dog-gone it, I know you!" cried Dolly. "You're Clancy!"

"Clancy?" exclaimed Lionel; "You are mistaken. My name is Deveraux. I can't understand how you can say it is Clancy."

"Don't pull that surprise stuff on me!" snapped Dolly. "The last time I saw you your name was Clancy. I ought to know, because I played professional marbles against you up in Saginaw!"

"Professional marbles!" burst out Lionel. "How dare you, sir? I never played professional marbles in my life!"

By this time Zip and Squirrel, and a considerable crowd of other boys as well had come up and surrounded the talkers. Dolly Grey immediately appealed to them.

"Look here! Is this fair?" he cried. "I'm anxious to meet our school marble champion, and when I see him, who is he but the famous professional marble shark Clancy, from Saginaw! And he comes to St. Andrews' and poses as an amateur under the flossy name of Deveraux! Ain't that the limit? What do you birds think we ought to do with him?"

"Duck him in the lake! Have him arrested!" yelled the crowd.

"Gentlemen!" cried Lionel holding up both hands, "there is some mistake. My name is not Clancy and I am not a professional. I can get a dozen testimonials to attest the truth of my assertions. I am an amateur, pure and simple."

"Mostly simple!" cried someone: and someone else shouted, as though in pity, "Aw let him up, he's all cut. We've kidded him long enough."

At the word "kidded," Lionel started as though he had been spurred.

"Kidded?" he repeated. "I've heard that word before and I'm beginning to believe there is something in it. At times I have suspected that you boys were not sincere; since yesterday there has been a doubt in my mind and now I'm going to find out." He spied Zip in the crowd, and pointed a long, thin, accusing finger at him. "Am I going east or not?" he shouted.

"Where do you live?" asked Zip, easily.

"Canton, Ohio," answered Lionel.

"Well, I suppose you will be going east when you go home on your Christmas vacation."

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Young Deveraux turned white and gasped as though he were choking. Then he removed his spectacles and held them in his hand.

"Will some one please hold these for me?" he inquired—his voice was husky with rage.

"I'll hold your cheaters, ole horse," said a bystander taking them from his hand.

"And now Mr. Zip Martin," said Deveraux, "you are going to fight me. My whole being shrinks from this vulgar exhibition, but it is the only thing to do."

"Aw, look here, Lionel," argued Zip, "it was only a joke. I didn't mean to hurt your feelings. Can't you take a joke?"

"I'm afraid I'm lacking in humor," answered Lionel; "I must be, or I wouldn't have been taken in so easily. Put up your hands. When I've finished with you I'll attend to Mr. Squirrel Brown."

Lionel retrieved his glasses and looked around the assemblage like a lion

Since there was nothing else for it, Zip took off his coat and stepped into the circle made by the onlookers. Lionel, with a set, frightened face, circled slowly round him. Then, with the quickness of light, he flew at Zip like a tiger. Before Zip could throw up his guard he received a blow full in the eye, which turned the landscape to a beautiful violet tint and made him feel like calling it a day then and there. But it caused him to lose his temper also, and he tore into Lionel with the strength of a young bull. The fight would have ended very soon (for Lionel was not his match by any means) had it not been for an unfortunate circumstance. At the height of his onslaught Zip's belt burst with a snap and his trousers fell to his knees! He cried out in horror, and stopped fighting to pull them up. Not so Lionel. He believed that war is war—a game where men take advantage of their opportunities relentlessly. Zip was well pummeled be-

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fore he got his trousers up again. And then, when he attempted to fight back, down went the trousers once more. He tried leaving them down, but they tripped and threw him; he tried holding them up and fighting back with one hand, but he failed miserably. And all the time Lionel's fists were landing on his skull like rain. To make matters worse, each time the trousers fell the onlooking boys rocked the surrounding country with their yells of derision and delight. At last, unable to stand any more, bruised, and almost crying with rage and shame, Zip burst out of the ring and ran wildly for the shelter of Benson Hall, both hands gripping the garment that had betrayed him.

Lionel retrieved his glasses, put them on, and looked round the assemblage like a lion.

"Where's the Squirrel?" he snapped.

"Why," volunteered a bystander, "he said he was going back to his room for a pair of suspenders, but he ran off in the direction of the car for South Bend. Guess he's gone, Iron-arm."

"Look here, you!" said Lionel fiercely, and breaking into slang for the first time in his life. "If you, or anybody else ever calls me Iron-arm, or the great marble marvel again, I'll knock you or him bow-legged! Get me?"

And he put on his coat and stalked majestically toward Science Hall.

The Quitter

By Sherman Ripley

He begins mighty strong, but it's not very long
Before he complains that it's rough,
And the first thing you know he has ducked the whole show
With a lot of that alibi stuff.
He promises well but you never can tell—
Aud you'll find that his word is untrue,
For it's always a cinch when it comes to a pinch
That a quitter is yellow all through.

He is right there in sight when the sun's shining bright—
When there's glory he's always around;
But if things go wrong and the current is strong
When you want him he cannot be found.
There is plenty of strife in this battle of life
And your share is a-waiting for you,
So don't pass the buck, nor complain about luck,
For a quitter is yellow all through.

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Ain't the Movies Educational?

By Z. Hartman

Illustrated by J. M. Foster

ACROSS the street from Altenburg's grocery store they were changing the signs and the pictures in front of the Gargoyle Theater. By boosting himself up on Altenburg's dill pickle barrel near the show window and elongating his neck until he commanded a view of the theater's front, Newt Crumpet could see the remains of yesterday's emotional feast, "Bleeding Heartstrings," come down, while the announcement of to-day's thrill producer, "The Tavern of the Purple Death," went up. Incidentally, the name of his favorite lady movie star gave place to the name of his favorite gentleman star in the electric sign—a fact so fraught with exciting possibilities that he almost fell into the pickle barrel.

By day Newt was Sol Altenburg's hustling clerk and handy man about the store; by night he was Peckville's most determined and desperate film fan, wearing a blissful path for himself between any two of its three picture theaters, the Gargoyle, the Spotlight, and the Sundial, and cursing the inventor of time for not making evenings long enough for a fellow to take in three movie shows, each lasting an hour and a half.

True, afternoon movies had recently become fashionable in Peckville, but as far as Newt was concerned the situation was unrelieved. With three theaters changing their bills daily, time for a third movie show a day was, as perverse fate would have it, not forthcoming. An afternoon off for his clerk simply did not enter into the calculations of Sol Altenburg. That gentleman had said so in eloquent grunts and looks so potent that they were quite capable of penetrating to Newt's understanding through his back. He felt one of them now from the rear of the store where Sol Altenburg in his shirt sleeves was trundling bags of flour around on a hand truck. Under stress of the look, Newt came tumbling down from his precarious perch on the pickle barrel to resume his task of filling an early morning 'phone order.

For fifteen minutes he toiled furiously, diving into cracker boxes, plunging into rice bins, and disappearing in sugar barrels, his long arms swinging like windmills from shelf to counter and from counter to shelf. Once his labors took him out in front of the store for a scoop full of cranberries from the bushel basket there on display, and he regaled himself with a good long look at the Gargoyle's posters across the street. He returned deep in thought, from which he finally emerged with a conscious cough aimed directly at Sol Altenburg.

"Looks like trade would be kinda slack to-day, don't it?" began Newt ingratiatingly.

No answer.

"I've got all them 'phone orders put up. If I do say it, there ain't nobody can beat me putting up orders!"

A faint grunt. Unabashed, Newt renewed the attack.

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Ain't the Movies Educational?

Newt almost fell into the pickle barrel

"Since there ain't likely to be much of anybody in this afternoon, mebbe you wouldn't object to me taking an hour off, Mr. Altenburg, and going to the movies. The Gargoyle has a dandy bill to-day."

The boss's grunt plainly registered dissent, though he never looked up from the battered cash book he was studying

"I seen a piece in the paper," Newt mustered his arguments with an ease due to almost daily practice, "telling how some one had said that some day folks would quit going to school and be taught all their lessons by moving pictures. It seems a real good idea to me!"

The boss snorted but otherwise refused to be drawn into the monologue.

"Every time I go," persisted Newt touching up the picture with an artist's stroke, "I get new ideas that I can use right over this counter. I'd be a lot more valuable to you, Mr. Altenburg, if I went more!"

"If you went oftener than you go," the boss suddenly found his tongue, "you'd have to lug along a folding bed and sleep at the theater!"

"Well, I never get to go Saturday nights, and lately you've been keeping me one or two nights extra. Last Tuesday night I was so late I couldn't take in but one show!"

Newt halted in the attack to wait on a customer who had just drifted in, renewing it the minute the lady paused for breath in her ordering.

"Cornstarch, prunes, bluing, vinegar, spuds, canned peas—is that all, ma'am? Didja see that picture at the Gargoyle showing how they shell peas by machinery, Mrs. Timmins? Great stuff! It's just wonderful the things you can learn from them pictures—how to rope steers and hatch ostrich eggs in an incubator, and everything. I was telling the boss. Say, ain't the movies educational, Mrs. Timmins?"

"Dunno as I can say. I don't have time to go much. I reckon I wouldn't have no use for steers or ostrich eggs—Newton Crumpet, you're pouring m'lasses into my vinegar jug! Are you plumb cracked?"

A little red around the ears, Newt hurried back to the grimy sink to rinse out the jug, avoiding the sidelong, basilisk glance the boss turned his way. He returned on the run, as jaunty as ever.

"Eggs, you said, ma'am?—As I was saying, I seen a pirate picture the other night and it learned me how them old buccaneer guys made folks walk the plank. Now mebbe that ain't strictly educational, but s'pos'n I should meet some hold-up men. How'd I know how to handle 'em if I

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didn't learn it from the movies that's got it all down to a fine point?"

The customer gave it up and meandered out, while Newt half turned to the boss with the triumphant air of having sprung the unanswerable. A grunt from Sol Altenburg was his only encouragement, but Newt had learned to thrive on his boss's grunts.

"I remember once you said, Mr. Altenburg, that a person wasn't really educated till he could meet every emergency without layin' down on the job. Well, every time I see a new show I learn how to steer through a new emergency!"

The boss was untying his apron and folding it up, while he reached for his coat. "Since you're so full of emergency dope," he returned dryly, "now's your chance to use a little of it. I gotta go and thrash out those freight bills with Barney Kitts. I'll leave you in charge of the store. I'll be back in an hour or so."

"I'd admire to do it, Mr. Altenburg. All I ask is for you to gimme a chance. The other day I seen where D. W. Griffith said the movies developed personal initiative and ambition and I reckon he said a mouthful. I'll prove to you that a wide-awake feller don't waste his time there. Then mebbe you won't mind letting me off an afternoon now'n then——"

"Guess I won't wear my overcoat. Seems pretty mild outside." And with a careless glance behind the back door where the garment hung, Sol Altenburg made his escape by that exit, shedding the seduction of Newt's ingenious arguments as a duck's back sheds rain.

Newt drew himself up to his most dignified stature and marched, stiff-legged with his responsibility, to the front door for another peep at the Gargoyle's posters. From their flaunting background, J. Salisbury Giltigan, the screen's mightiest hunter of criminals and the terror of movie villains, glowered at him from under a low-pulled hat brim with his hand midway in the act of whipping a gun from his hip pocket. Newt, who knew all the star's pictures by heart, to say nothing of his complete procedure for ferreting out every crime from arson to body snatching, instinctively crouched lower, his own soiled fist stealing warily to his apron-draped hip pocket. Just then the telephone bell rang. Newt made a dive for the receiver, but before he took it down he couldn't for the life of him repress a dark, stealthy glance about him. The obsession of J. Salisbury Giltigan was too strong upon him.

"Cornstarch, prunes, bluing, vinegar, spuds, canned pears—is that all, ma'am?"

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Ain't the Movies Educational?

"Hullo, this is Cornelius Quinn," said the voice at the other end of the wire. "I got a friend here who wants to cash a check. He's going out of town in about fifteen minutes, so he can't wait for the banks to open. Could you folks oblige me by cashing it for him?"

"How much is it for?" queried Newt.

"Sixty dollars. Can you make it?"

Newt took a hasty look at the cash drawer and opined that he could; whereupon the voice on the wire replied, "I'll send him right over," and the receiver clicked at the other end. Newt hung up and pondered the situation. Cornelius Quinn was one of the store's biggest customers, who demanded and received limitless credit, paying up with royal lavishness at the end of every few months. It would never do to affront so powerful a customer as Mr. Quinn.

On the other hand, Newt was not familiar with the voice or the personality of Mr. Quinn, as Mrs. Quinn usually negotiated for the family groceries. Besides, the story struck a false note with its excuse about the gentleman who had to leave town so soon he couldn't wait a half hour for the banks to open. A steady diet of detective films, moreover, with J. Salisbury Giltigan's comely person prowling around in the foreground, is conducive to the growth of suspicion.

In his present mood, Newt would have been suspicious of his white-haired grandmother's singing "Bye-low, Baby Bunting" to his infant sister. He snatched the receiver from its hook and called Cornelius Quinn's number. No answer, though Central rang repeatedly at his instigation.

As Newt replaced the receiver, the front door opened to admit a man.

"I'm Corny Quinn's friend," he announced gently. He seemed a mild, inoffensive creature with a deprecatory cough. "I reckon I'll take that $60 now, if it's handy for you."

Newt scanned the check with a gimlet eye. It was made out to Martin Bell.

"Who's Martin Bell?" he demanded.

"That's me."

The fellow looked respectable enough, but Newt suddenly discovered that he had a shifty eye, and long experience with the "close-ups" of screen miscreants had taught him that such a sign is the inevitable index finger pointing out the dark and devious pathway of crime. He bade Martin Bell wait and again called the Quinn number. The result was much monotonous ringing and Central's assurance that "your par-ty does not ans-wer." In the midst of his quandary the store's delivery boy double-shuffled and clog-danced his way in by the front door announcing that he just happened to be passing and where was that Jackman order?

At one bound Newt skated half the length of the store and caught the youth by the shoulder, haranguing him in a low tone: "Never mind the order, Hank, but chase around to Cornelius Quinn's house lickety guns and find out if he sent a man named Bell around here to cash a check for $60. I can't raise the house on the 'phone. Find out why. Now, shake a hoof!"

As he returned from shoving the open-mouthed Hank out the door toward his delivery wagon, he was greeted by Mr. Bell's deprecatory cough: "I'm afraid I'll hafta go. I might miss that train. Anyway, it don't seem quite handy for you to cash this check."

"Oh yes, *that's* all right," assured Newt, observing how the fellow's glance skulked among the baskets of potatoes and rutabagas on the floor instead of meeting his own acute orbs. Just then, a brother tradesmen from the meat market across the street bolted in seeking change for a $20-bill, and

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when he had bolted out again the man with the check had vanished, with the back door ajar to bear witness to the means of his exodus.

Newt mastered a bored, it's-nothing-I-foil-dozens-of-'em-every-day expression and distended his overstuffed chest for a real Giltigan "close-up." The pose was cut short by the entrance of the delivery boy and—lucky coincidence!—almost upon his heels, Sol Altenburg.

"Missis Quinn," thus spake Hank, "she says Corny couldn't have 'phoned because he went to his farm in his fliver at seven o'clock this morning. And the reason why you couldn't call the house was that someone called her awhile ago and said they was the telephone company and would she take her receiver off the hook while they made some repairs. So she took it off. But she rang up the company while I was there and found they'd never called her a-tall!"

"It was that Bell guy!" cried Newt. "I suspicioned him from the first. I have," he turned to Sol Altenburg with a kind of lofty modesty, "just foiled one of the slickest confidence men ever seen in these parts He ought to be in pictures, he was that foxy!"

The boss looked Newt up and down once or twice—and grunted. Then he plodded to the back of the store, peeling off his coat. He paused abruptly before the half-open back door.

"That slick con man you foiled with one hand tied behind you," he observed, staccato, "has eloped with my brand new overcoat!"

One look at the empty hook sent Newt tumbling pell-mell out the back door after the thief. He returned with equal velocity.

"My bike's gone! Just had it fixed—new tires'n' everything!" he gulped, his eyes bulging rather wildly and seeking inspiration from the surrounding tiers of canned asparagus and oxtail soup mounting to the ceiling. They rested on a shelf above the sink occupied by a row of empty cans, bottles and odds and ends; whereat they ceased to bulge and regained their usual cosmic calm.

"I'll *get* that guy!" he announced, tossing his apron far from him and seizing his cap. At one swoop he robbed the shelf of two dusty ginger ale bottles and tore out the back door like a runaway airplane, his arms swinging propeller-wise, each with a bottle at the end. He crisscrossed the empty lot back of the store and gained the sidewalk before he remembered Hank's delivery wagon; but the memory of the boss's set face kept him from returning and asking for it. Besides, he had heard Hank say that morning that the off horse was lame, which meant it would be no good in a chase.

As his eye ranged up and down the street and saw no sign of the thief, he started to run south, colliding with a group of small boys at the first corner and seriously disturbing the peaceful, rhythmic mastication of their spearmint. Newt drew up and pelted them with inquiries, but their collective answers were as the storied two bushels of chaff in which were hidden two grains of wheat. These precious cereals proved to be the testimony of one Ernie Miller, a telegraph messenger boy, an alert-eyed youngster with a face as bright as a newly minted dollar and a cocky tilt to his messenger cap.

"I see a feller come out o' Altenburg's back door puttin' on an overcoat," he volunteered, removing his wad of gum in the interests of freer elocution. "Then he grabs the bike leaning against the store wall and wheels it into the road and hops on."

"Which way did he go?"

"Straight south, down Central Av'noo."

In fact, Ernie's story was so clear and

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positive that Newt ignored the voluble but conflicting evidence of the other urchins and headed south closely trained by the whole delegation, to whom any disturbance of the prevailing small-town tranquillity, however insignificant, was meat and drink.

He soon halted again, his mind busier than his feet. Up the street straight toward him came a light motor truck bearing the gayly painted legend, "Sissons Delivery Express, Baggage Hauled," with one of his particular cronies presiding at the wheel. Newt charged into the middle of the road and flagged the vehicle with a bottle waving in each fist. His statement of his case, though none too coherent, galvanized the languid youth on the driver's seat into immediate action.

"Gee whiz, Newt, you oughta get a reward or somethin' if you nab this thief!" vociferated the driver, his eyes snapping excitedly as the truck swung right about face and Newt clambered over the wheel into the seat beside him. "This is A No. 1 honest-injun deteckitif work!"

"Sure it is! I'm not saying anything now about rewards, Arch, but my boss is goin' to find I'm worth more to him than just a little old clerk!" admitted Newt cautiously, loth to spoil the climax of his achievement by a premature revelation of the recompense he was expecting.

Meanwhile the small boys hurled themselves recklessly into the empty space behind and the truck cannonaded down Central Avenue at a tempo determined by our best cinema directors. Several times the "deteckitif" squad pulled up long enough for Newt to bark questions at passersby. Finally they gleaned a clue. A passing teamster assured them that he had just come from Poplar Drive, the next street east of Central, where he had passed a cyclist in an overcoat pedaling south for dear life along the drive.

"Just as I figgered it!" crowed Newt. "He's beating it out of town as fast as he can, but he's getting off Central to make us lose the trail. Turn into Poplar, Arch, and step on the gas hard!"

The turn was made on two wheels, with nothing but the prehensile talents of human fingers and toes to prevent a rain of mint-flavored small boys from the back of the truck. In the excitement Ernie Miller lost his messenger cap and several others swallowed their gum. Down Poplar Drive the neck-or-nothing chase continued with Newt shouting exhortations at the perspiring Arch and squinting ahead at the white stretch of road flying away from them toward the rows of trees on both sides of the street.

Suddenly he gave a kind of falsetto yelp and stood erect in the truck. (At crises in a screen chase, J. Salisbury Giltigan and the rest of the brotherhood always stood up in the car in order to shoot, hurl missiles, leap, or merely to boss the job, as occasion might require.) He had just sighted a dark figure on a wheel hugging the left hand curb several blocks ahead.

In another moment Arch had spied it, too, and almost forgot to steer. "He's rubbering over his shoulder—he sees us! Cricky, lookit him dodge down that alley! It'll take him right through to Bluff Street!"

"And unless he rides smack over that high bank into the river, we've got him!" chortled Newt. "That guy don't know the lay of this town all right! Straight ahead, Arch; don't try to follow him!"

"How's that?" shouted Arch above the rattle of the truck. "Expect to ketch him at the turn?"

Newt nodded, his voice somewhat spent from hard use. He counted the quarry as good as caught, since Bluff Street suddenly deserted the river bank and wound into Poplar Drive several blocks farther south on the edge of town, where the drive be-

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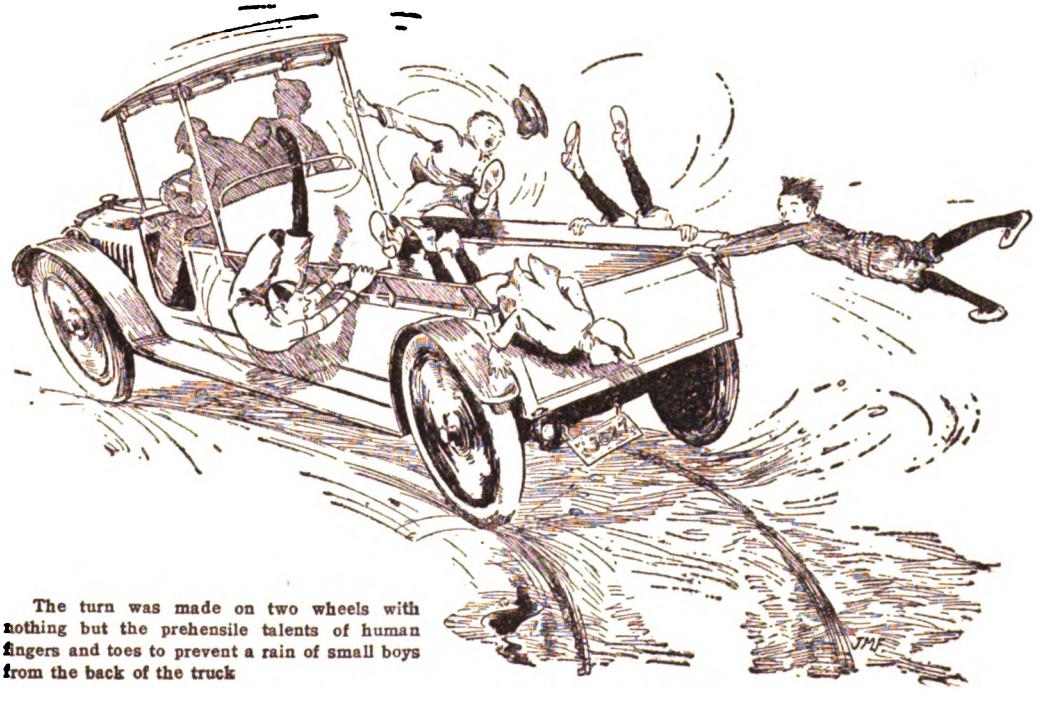
came a country road. To this junction the truck sped on and came to an abrupt stop, which precipitated the long-expected shower of small boys into the gutter. They soon recovered equilibrium, however, and as Newt swung off in front and hastily selected a good sized rock at the side of the road, they swarmed around him led by Ernie Miller, who fairly oozed sound advice and brilliant suggestions.

They watched Newt smash both ginger ale bottles with his rock and strew the fragments with mathematical precision from gutter to gutter. He did it all the more efficiently for having seen the feat performed once in vaudeville, once at the Spotlight and several times at the Gargoyle. Meanwhile Ernie and Company strengthened the fortifications by dragging up the largest stones they could find and dropping them at strategic points in the road in the hope that "if the glass don't ketch him the rocks will." They were not a moment too soon. A glance up Bluff Street sent the entire "deteckitif" squad scurrying to the shelter of the truck.

Half a minute later the wheel and its rider shot into the turn, hit one stone and rebounded against another, struck the cordon of glass with a sharp fusillade of popping tires, and collapsed in a shallow ditch just beyond the turn of the road. Newt led the charge of hooting small boys and they fell upon the thief with all the enthusiasm of youth and superior numbers and battled with him, tooth and nail.

Eager hands clawed at his collar and his coat tails and hung on with a lobsterlike grip to his arms and legs. For a few moments the scrimmage resembled an intricate brush pile of waving legs. There was the ominous sound of ripping cloth and cracking seams and more than one of the retinue suffered a torn jacket. Newt himself burst off a button while digging his knees into the chest of the victim, from



The turn was made on two wheels with nothing but the prehensile talents of human fingers and toes to prevent a rain of small boys from the back of the truck

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whose struggling, profanity-breathing person they finally stripped Sol Altenburg's overcoat.

Several willing hands rescued it and rolled it into a ball, tossing it under the driver's seat, while Arch dragged forth a trunk rope with which he and Newt bound the prisoner hand and foot. Then they dumped him into the back of the truck and loaded the bicycle on top of him. The retinue piled in and sat on such parts of his anatomy as the wheel left free, especially those parts that resumed their ineffectual wrigglings in efforts to escape their bonds.

Newt mopped his streaming face and ascended to the driver's seat and then to that particular seventh heaven reserved for hero arch-angels, while Arch backed the truck and maneuvered the turn with a vast roaring and chugging of the engine and a few sharp explosions, as if the machine were celebrating the capture with some fireworks of its own.

All the way back to Main Street, Newt indulged in a kind of beatified mental arithmetic, making out bills to himself in which the names of Sol Altenburg and Civilization appeared as debtors at the head of itemized accounts consisting of "one fake $60 check not cashed," "one new overcoat recovered," and "one wheel recovered." In computing the wages of efficiency it seemed to him that one afternoon off a week to go to the movies would be a modest enough boon for him to ask.

When he put it up to Arch, that impartial judge rated his services even higher, suggesting as much as $20 reward for a first-class piece of "deteckitif" work, and as an alternative, "Mebbe your boss would take you into the firm and likely raise your salary." Newt pondered the problem gravely and, feeling that the partnership proposal might be a trifle premature, decided to ask for the raise in salary and the indispensable afternoon off at the movies.

As they drew up at Altenburg's store, where that gentleman himself was standing in the doorway, Newt climbed down with a conquering gleam in his eye and a pokerish stiffness in his spine and beckoned his boss to the curb to view the neatly bound prisoner in the truck. Arch had promised to convey the latter to the town lock-up, so they decided not to move so cumbersome a prize.

Newt dragged out the bicycle and the overcoat still rolled up in a ball and followed the boss into the store, where with austere dignity he presented these trophies of battle to the speechless Sol. After telling the story of the chase, he beamingly summed up his own benefactions with a deft, "So there's your overcoat, Mr. Altenburg, and here's my wheel. Ain't it fortunate that jailbird didn't get away with his $60 swindle? He oughta know better than to try to put anything over on *me,* that keeps my wits sharp by going to the movies regular. If you'd just let me off to go one afternoon a week, Mr. Altenburg, you'd never regret it, honest! Now, there's a good bill at the Gargoyle this afternoon——"

The words froze on Newt's lips as, with awful deliberation, the boss unrolled the coat and shook out its folds. It was undeniably and irrevocably split from collar to coat tails. Even its heavy satin lining had suffered and looked as if it could account for most of the sounds of ripping during the late mêlée. The boss's eyes traveled from the ruin to the weird tangle of spokes, rubber ribbons, and twisted handle bars that had once been a wheel and Newt's appalled gaze for the first time took in the full extent of its injuries as it leaned forlornly against the counter. Before either could speak, a dolorous wail came from outside and Arch burst into the store,

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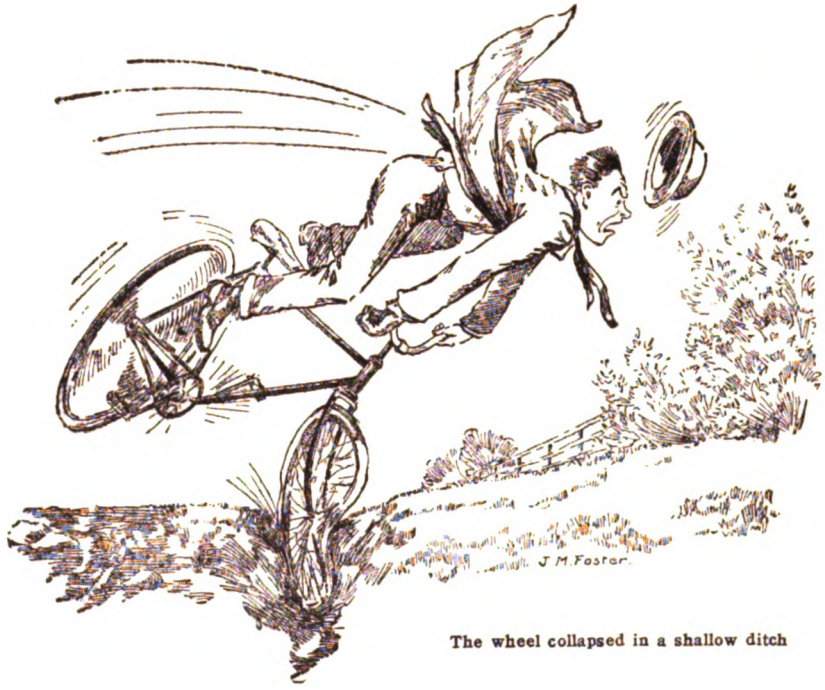
his eyes popping halfway out of his head with fear and panic.

"Gosh, oh g-gosh!" he stuttered. "Wh-what d'ye think, Newt, I blew out one of them back tires when I made the turn to come back to town! Backed into that broken glass of yours! I thought I heard something pop at the time. Y'oughta see how she's gashed! Gee whiz! I don't know what I'll say to my boss, Mr. Altenberg. He'll fire me sure!"

"You go ahead and hand the prisoner over to the police. Send the bill for your tire to me!" said Sol Altenburg without turning a hair.

As Arch left the store, plainly much relieved, the boss tossed the wrecked overcoat on the counter and began to figure on the margin of his sales book. "Let's see, a new tire will bust a fifty and then some, and that overcoat cost me all of $60; and I'll eat my hat if the bill for fixing your wheel doesn't make $25 look sick. Movies —bah!" The boss had one more grunt left in his system and he bestowed it on the utterly wilted Newt. "Get busy there now and open that case of sardines. There's enough work in this store to keep you humping every afternoon for the next five years!"



The wheel collapsed in a shallow ditch

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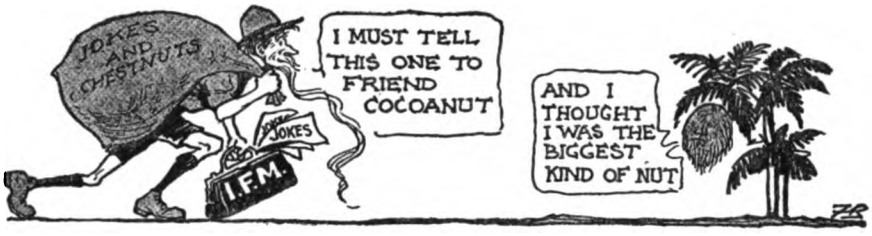

Think and Grin

Edited and Illustrated

By Frank J. Rigney

Helpful Hints

There are several ways of using baked ham. One of the best is to eat it.

Spaghetti should not be cooked too long. About ten inches is right.

A cold bath will be found more pleasant if made with hot water.

Clean Slate

"Has nobody called during my two days' absence?" said the doctor to his office boy. "I left this slate here for callers to write their names on, and it is perfectly clean."

"Oh, yes, sir," answered the page. "Lots of people came, and the slate got so full of names that this morning I had to rub them all off to make room for more."

Usual

"Yes," exclaimed the self-made man, singing his own praises lustily, "I began life as a barefooted boy."

"And I wasn't born with boots on either," came a remark from a member of the audience.

Gone

"When does the five-thirty train leave?" shouted a belated passenger, bursting in at the station door.

"Five-thirty," replied a porter.

"Well, the post office clock is twenty-eight minutes past five and the town hall clock is thirty-two minutes past. Which am I to go by?"

"Ye can go by any clock ye want but ye can't go by the train, because it's gone."

Helpful?

A small boy was scrubbing the front porch of his house the other day when a lady called.

"Is your mother in?" she inquired.

"Do you think I'd be scrubbing the porch if she wasn't?" was his reply.

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Think and Grin

Fast

"Is this a fast train?" the salesman asked the conductor.

"Of course it is," was the reply.

"I thought it was. Would you mind my getting out to see what it is fast to?"

Measuring Him Differently

Uncle (a scientist): Well, Joe, is your brother back at college?

Joe (a footballer): No, sir, he's quarter-back.

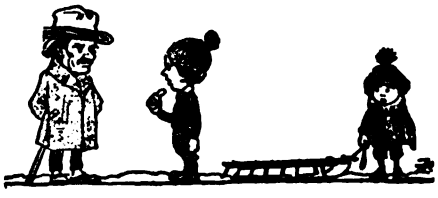
Open to Question

Two scouts were in swimming; but one, a tenderfoot, wasn't making much progress when the First Class Scout said: "Close your fingers up, you tenderfoot, you wouldn't eat soup with a fork, would you?"

Second Thoughts?

"This watch," remarked the dealer, "will last a lifetime!"

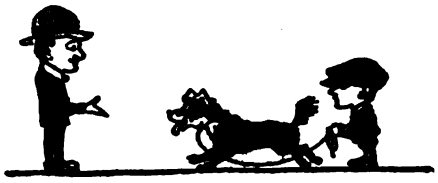
"Nonsense," returned the customer, "your remark is absurd *on the face of it,* for it is plain to see that its hours are numbered."



Fifty-Fifty

Uncle: Why don't you let Jimmy have the sled part of the time?

Johnny: I do, uncle. He has it coming up the hill.



Woof!

Man: What kind of a dog do you call that?

Boy: He is part shepherd, and (after a thought) and the rest is just dog.

A Secret

Patrol-leader (to his chum as they are returning from a Scouting game at dusk): What does the night do when it falls?

Chum: Couldn't say.

Patrol-leader: Keeps it dark, of course!

Made a Mess of It

"I am a self-made man," said the speaker.

"That's a poor excuse," hollered a member of the audience.

Speaking Lightly

First Scout: Who invented electricity?

Second Scout: Edison.

First Scout: No, it was Noah.

Second Scout: How is that?

First Scout: When he put the animals out, didn't he make the ark light?

"Glupp!"

Tenderfoot: Gee, this soup is delicious.

Second Class Scout: Yes, it sounds good.

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Think and Grin

Sharp

Examiner: The snake I am speaking of is said to strike with mathematical precision!

Smart Scholar: Mathematical precision! Then it must be an adder!

Be Careful with This

Right in front put the middle of the end,
In the middle put the end of the rear,
The middle of the middle
And the end of the middle.
The result—a strange word will appear.

Solution

The middle of THE END is EE.
The end of the REAR is R.
The middle of THE MIDDLE is I.
The end of the MIDDLE is E.
The word, therefore, is EERIE.

Help!

A small boy stood on a pier looking into the water and crying.

"What's the matter?" asked a scout.

"I had a t-t-ticket to the m-m-movies and it fell into the river."

"Oh, that's all right," said the scout. "I'll buy you another one."

"Y-y-yes, b-b-but it was in my b-b-brother's p-p-pocket."

Fame

Phil O. Sopher: Yes, Shakespeare was a great man but I wonder whether he'd be as famous were he alive to-day.

Soph O. More: Sure, why he would be at least three hundred years old!

Mebbe

Late Arrival: Do you think I shall catch the 10:20, porter?

Porter: You might—it's only got ten minutes' start.

Without Mincing Words

Teacher: If I cut a beefsteak in two and then cut the halves in two and then cut the quarters in two, what do I have?

Johnny: Eighths.

Teacher: And then again.

Johnny: Sixteenths.

Teacher: Again.

Johnny: Thirty-seconds.

Teacher: Again.

Johnny: Hamburger.

Short

A teddy bear sat on the ice,
As cold as cold could be,
But soon he up and walked away,
"My tale is told," said he.

Eggstraordinary

First Class Scout: It says in his paper that the codfish lays over 1000 eggs at a time.

Tenderfoot: Huh! It's a good thing it doesn't have to cackle for each one.

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A Stirring Tale

Judge: Why did you take the spoons in that restaurant?

Clept: Because the doctor told me to take two spoons after each meal.

At the Minstrel Show

Sam: Rastus, what is the difference between a man that has seen Niagara Falls, a man that hasn't seen Niagara Falls, and a ham sandwich.

Rastus: I dunno, Sam.

Sam: The man that has seen Niagara Falls has seen the mist and the man that hasn't seen Niagara Falls has missed the scene.

Rastus: Where does the ham sandwich come in?

Sam: That's where you bite.

Befriending the Enemy

Customer: When I bought this dog you said it was splendid for rats. Why, the dog won't go near one!

Dog Dealer: Well, isn't that splendid for the rats?

Suffering

Johnny's Aunt: Won't you have another piece of cake, Johnny?

Johnny: No! thank you.

Johnny's Aunt: You seem to be suffering from loss of appetite.

Johnny: It ain't loss of appetite. What I'm sufferin' from is politeness.

Seeing Through Things

The examiner had asked what a transparent object is.

"An object you can see through," was the reply.

"Very well. Give me an example."

"A pane of glass, sir."

"Right. Now, next boy, another."

"A keyhole, sir."

A Shock Absorber

Waiter: Oh, yes, sir, we're very up-to-date at this hotel, sir. Everything's cooked by electricity.

Diner (after vain struggle with his portion of meat): I wonder if you'd mind giving this steak another shock!

Pete Wins

Jimmy: Say Pete, why do you always have holes in your shoes when your father's a cobbler?

Pete: Well, why has your little brother only got one tooth when your father's a dentist?

Well?

Doctor: Have you carried out my instructions faithfully?

Patient: Yes, doctor, I've been having three baths a day.

Doctor: Three what?

Patient: Three baths, sir, according to instructions on the bottle.

Doctor: And what are they? There must have been some mistake.

Patient: The label said that the tonic must be taken three times a day *in water*.

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Hard Times

Teacher (reading from book of ancient history): "And the people rent their clothes." What does that mean?

Pupil: I suppose it means that they couldn't afford to buy them!

Older

Manager (to applicant for office boy vacancy): Aren't you the boy who applied for this position a fortnight ago?

Boy: Yes, sir.

Manager: And didn't I say I wanted an older boy?

Boy: Yes, sir. That's why I'm here now!

Got It

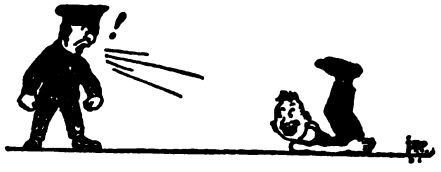
The card, "Boy Wanted," had been outside the door only a few minutes when a bright boy entered the office with the sign under his arm.

"Say, Mister," he demanded of the boss, "did you hang out this sign, 'Boy Wanted?' "

"I did," replied the merchant sternly, "why did you take it down?"

"Why, I'm the boy!"

He got the job.



Out of Turn

Officer (instructing the daily exercises): Now men, lie on your backs and work your feet as though you were on a bicycle.

One recruit stops.

Officer: Why did you stop?

Recruit: I'm coasting, sir.

How About a Bear's Sudden End?

First Class Scout: What is worse than a giraffe with a sore throat?

Tenderfoot: A centipede with corns.

Uh?

"How many clerks work in your office?"

"Oh! about half of them."

Put His Foot In it

Awakening in the middle of the night, a guest in a strange hotel saw a hand resting on the footrail of his bed. "Take that hand away," he called, reaching under the pillow for his pistol, "take it away, or I'll shoot." The hand remained. He fired. Now he is minus two toes.

"Put in" not "Put off"

Mother: Never put off till to-morrow what you can do to-day.

Johnny: That's right, ma, so I've finished up the other part of that cherry pie.

Room

Thin: Have you plenty of room, madam?

Fat: Yes, thank you.

Thin: Well, then, please give me a little.

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A Few Posers

What is it which will be yesterday and *was* to-morrow? To-day.

What is the best way of making a coat last? Make the pants and vest first.

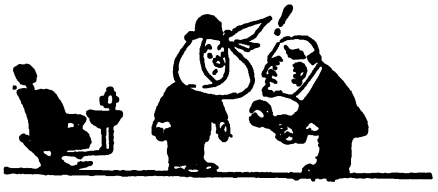
To what question must you answer yes? What does y-e-s spell?

When you fall in the water, what is the first thing you do? Get wet.

Why do we buy clothes? Because we cannot get them for nothing.

Why is a dog's tail a great curiosity? Because no one ever saw it before.

What do you expect at a hotel? Inn-attention.



Said a Mouthful

As the dentist examined the teeth of the newcomer with the swollen countenance, he put the question: "Have you had any advice before with regard to your teeth?"

"Yes," replied the patient. "I called on the chemist last night."

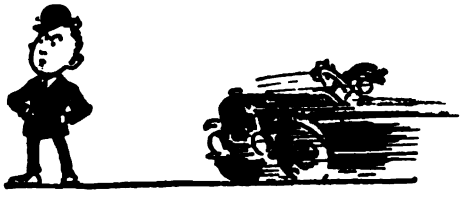
"Oh, what foolish advice did he give you?"

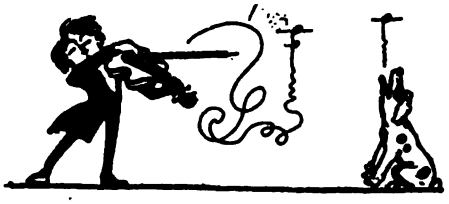
"Well, he told me to come here."

Forethought

"Did you ever stop to think what a wonderful invention the automobile is?"

"Yes, and I went to the hospital for three months for stopping in front of one!"





Discord

Squeaks: I was only eight years old when I first learned to play the violin!

Friend: And how old when you first forgot?

B'ar

Adventures and hair-breadth escapes were being related around the campfire when the old trapper broke in.—"Wa-al, boys," said he, "in my time I've been in some tight corners. Why only a couple of weeks ago, not forty miles from here, I came face to face with a reg'lar honest-to-goodness grizzly b'ar weighing all of 700 lbs. He rose up suddenly before me and there we stood not four feet apart staring each other straight in the face. I didn't have my gun with me, and it certainly would have been foolish of me to run. The b'ar opened his mouth and I could count every one of his big ugly teeth. "It's now or never," said I, and raising my right hand with all my force I swung forward and crashed—a—peanut through the railings right down that b'ar's neck. Yep, I almost forgot to tell you that this happened down at the Zoological Gardens."

Clear as Mud

'Twas midnight on the ocean,
Not a street car was in sight,
The sun and moon shone brightly,
While it rained all day that night.
For in the summer snowstorm
When the rain flowed just like glass,
A barefoot boy with shoes on
Stood sitting in the grass.

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Said a Mouthful

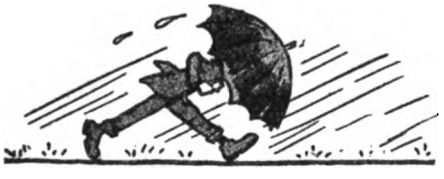
Early Bird: Ah, good morning! Looking for a job?

Worm: Yes. Anything I can do for you?

Early Bird: Yes; you'll about fill the bill.

Record Breakers

During a heavy fall of rain a man carrying a very wet umbrella entered a hotel to pay a call on some one. After placing his umbrella where it might drip, he pinned a piece of paper to the umbrella and wrote upon it: "Notice—This umbrella belongs to a man who can strike a 252 pound blow. Back in fifteen minutes." He went upstairs, and after an absence of fifteen minutes returned, to find his umbrella gone and in its place a note reading: "P. S.—Umbrella taken by man who walks ten miles per hour. Won't be back at all!"



Trained

"I see," said one commuter to another, "that they have taken the eight-thirty off this line. Do you miss it much?"

"Not as much as when it was on."

Twenty-four Inches?

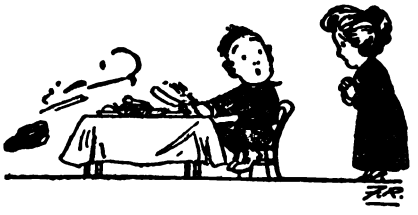
Teacher: A biped is anything that goes on two feet. John, name one.

John: A pair of stockings.

Who Am I?

I am in both corners of your eye,
And, whether weather snows or blows
No one will ever dare deny.
I'm on the tip of each man's nose.

Answer: "E."



Tough

Tenderfoot Harris was entertained at the scoutmaster's. His meat slipped from his plate and he felt he ought to say something which would not embarrass his hostess.

"Tough meat often does that," was his explanation.

So He Was

Jimmy: My brother was where the bullets were thickest in the war.

Johnny: How brave; And what did he do?

Jimmy: He handed out the ammunition.

With Pleasure

Waiter: How would you like to have your steak, sir?

Diner (tired waiting): Very much, indeed!

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TALES OF TRUE ADVENTURE

"The Golden Eagle"

With several thrilling bits of personal experience, Charles L. ("Grizzly") Smith seasons this tale of the life and habits of one of our great birds.

"The Elephant Hunt"

How the Africans prepare for the hunt, carry it out and the ceremonial that concludes it, described by Thomas S. Miller, who knows "darkest Africa."

"Meeting a Rocky Mountain Lion"

An incident of the old west related by "Old Pioneer."

"A Message to Lincoln"

A bit of history not in the books; as full of exciting incident as a fiction "thriller." Written by George D. Bryan.

"Old Gray's Last Fight"

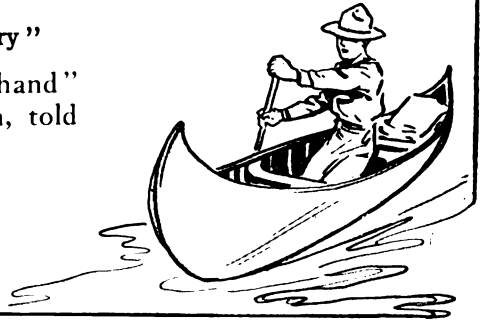
David M. Newell tells the story of a fine old dog and his last hunt.

"Pierre of the Train Band"

Thrilling story of the French and Indian War, by F. A. Palmer.

"Lion—A Dog Story"

How he worked as a "hand" on his master's farm, told by L. B. Holmes.



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I saw a Golden Eagle throw a yearling goat from the top of a very high cliff in the Selkirk Mountains

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The Golden Eagle

By Charles L. (Grizzly) Smith

Illustrated by M. S. Johnson

UNLIKE the Bald Eagle, the American species of the Golden Eagle, sometimes called the Black Eagle, builds its nest and rears its young in the almost inaccessible crags and cliffs of the Rocky Mountains and along the rougher parts of the Sierra Nevadas.

They are especially abundant in British Columbia and Northern Canada. Their food and habits differ widely in many respects from our national emblem, the Bald Eagle, which may be found nesting about lakes and along the shores of rivers where fish and water fowl are abundant. The chief food of the Golden Eagle is small animals rather than birds. They are very destructive to the young of mountain sheep, and mountain goats, Arctic hares, or snow-shoe rabbit, ground squirrels, spermaphile, lemming, and other rodents. Their young, two in number, are hatched the latter part of May or the first of June and are voracious eaters from the time they emerge from the shell, but the parent birds always keep a large supply of food on the border of the nest which they feed to the little ones frequently during the day.

The nest is built of a few coarse sticks and weeds in a niche in the rock of some inaccessible cliff where it is generally impossible for anything but a bird to reach the young. These nesting sites face the south or west so that the rays of the sun will keep the young birds warm while the parent birds are in the field hunting. The Golden Eagle has a very peculiar habit of saving the hind quarter of an animal slain for food for their young. When they catch an animal it is carried away to some convenient crag where the head and shoulders down to the hind quarters are eaten by the parent birds, then the hind quarters are carried to the nest and dropped upon the border until required by the young birds, then the flesh is picked from the bones by the parent and fed to the young.

Another peculiar trait of the Golden Eagle is the manner in which it removes the skin from the carcass of game. This is done by tearing the skin loose about the head or neck and then as the body is devoured it is rolled down toward the hind parts, until the animal is completely skinned, but this is only done as the flesh is needed, and the skin is left on the remaining part until the young require another feed. They are very bold and will, when hungry, sometimes attack a yearling deer or sheep. I remember once while I was hunting through the mountains of the Cascade range in Central Oregon seeing a Golden Eagle attack a yearling deer, which would soon have been killed had I not interfered. Its method of attack was vigorous and persistent, giving the deer no chance for escape. The deer was out in an open bit of country when the eagle swooped down upon it and as the eagle passed over its back he seized the top of the shoulders in his claws and threw it violently on its side, then swooped suddenly up forty or fifty feet, closed its wings and like a

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plummet came down again before the animal had time to recover from the shock, for the deer was no sooner on its feet than the Eagle grabbed it again by the top of the shoulders and it went down again. The deer gradually grew weaker and weaker and just what the Eagle's method of slaying it would have been, I do not know, for I drove the bird away and walked up within twenty feet of the deer, which seemed completely bewildered.

Frequently I have seen these birds attack the young of mountain sheep and goats. In the spring of 1899 I was hunting grizzly bear on the headwaters of Caribou Creek which flows into the Columbia River between lower and upper Arrow lakes in British Columbia. One day while hunting through a rough and very mountainous district I saw a Golden Eagle pass overhead with the carcass of a young goat in its claws. I watched until I saw it disappear around a crag about a mile away. I thought little of the incident at the time, but along in the afternoon I climbed quite high on the mountain side and worked around in the direction the Eagle had gone. I finally came out on the shoulder of the mountain on top of a very high cliff of rocks where I sat down to look over the country for any bear that might be out feeding. I had been there but a few moments when I saw a Golden Eagle leave the face of the cliff about one hundred feet below me, where it circled round and round getting higher and higher. After it had attained an altitude of three or four hundred feet above my head it folded its wings and dropped at me like a shot. It came down within about twenty feet of me, then, spreading its wings, soared away over the canyon. This maneuver the bird repeated three or four times and then disappeared over the shoulder of the mountain.

I was satisfied from the actions of the eagle that I had located the nest so I worked my way around the side of the mountain until I could see the face of the cliff and then discovered the nest in an angle of the rock on a little narrow shelf. I traveled this little shelf of rock with my eye to where it intersected the slope of the mountain and on hands and knees I worked my way along it for a distance of two or three hundred feet and finally reached the niche in the rock where the nest was located.

This nest was about three or four feet across the top, the foundation being, of course, sticks, some of them an inch and a half in diameter and four or five feet long. The top of the nest was made of finer materials, the center was lined with pine grass and a few dead weeds. In the nest were two young eagles only a few hours old and it seemed to me that around the border of the nest the parents had already stored enough food to last them and their young for a week, for here were the hind quarters of two or three mountain goat kids, the hind parts of a number of ground squirrels and other small animals such as chipmunks and marmot. As I had seen nothing of the parent birds since the one previously spoken of had disappeared, I picked the little eagles up and placed them in my shirt bosom and started to retrace my way along the little ledge, but I had gone only a few feet when I saw not one but two eagles coming over the top of the mountain a few hundred yards away. As soon as they saw me they began to circle and after gaining considerable height one dove at me by folding its wings to its sides and darting at me until it was within a few feet of me when it darted to one side and began to circle again, then the other bird came at me in a like manner. This they repeated one after the other each time coming a little closer and getting bolder and bolder, but each time as they dove at me I lay flat along the little shelf with my back against

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the wall, intending, if they came close enough to seize them in my hands, for this was my only method of defense. Many times they came within three or four feet of me and I have no doubt, had I been in an upright position or even on my hands and knees, I would have been struck and forced off the ledge to be dashed to death on the rocks many feet below.

The birds fought me in this manner until I reached my rifle when I fired at one as it dropped toward me but missed. This seemed to frighten the eagles; they circled and rose high in the air and finally disappeared over the top of the mountain and I saw them no more. I took the little ones to camp where I made a warm nest of dry grass and at night I warmed my coat and spread it over the little birds to keep them warm. They grew very rapidly and it seemed to me they were constantly crying for food. During the six weeks that I remained in the mountains hunting bear I fed those two eagles the flesh of three porcupines, nineteen British Columbia ground squirrels and the ham of a yearling goat.

When the hunt was over I went back to the little town of Robison at the lower end of Lower Arrow Lake where I sold the eagles to a man who took them to Trail, B. C. There they were kept until the fruit fair at Spokane, Washington, the following fall where they were exhibited and sold to a lady whose name I do not recall, who gave them to one of the city parks of Spokane. I did not see the birds again for about four years, when on visiting in Spokane I went to the park where the birds were. I had practically forgotten all about the eagles until I approached the cage where the birds were kept. I walked up very close and remarked to a man standing near that those were splendid specimens of the Golden Eagle. I had named the two birds when I first captured them Punch and Judy because of their grotesque looks.

No sooner did those two birds hear my voice than they both flew down off their perch and came close up to the bars and began to flap their wings violently and scream at the top of their voices. The keeper who was a short distance away came running up and grabbed me by the shoulder and jerked me away from the cage and wanted to know what I was doing to the eagles. I replied that I was doing nothing at all and he told me he knew better because he had cared for those birds ever since they had come to the park and they had never acted in this manner before. Then a thought flashed to my mind and I remembered the little eagles I had raised in the mountains of British Columbia. I asked the keeper where the eagles had come from and he at once related the history of the birds as far as he knew it.

"My friend," I said, "I think I can explain the strange actions of the birds by telling you that I am the man who captured those birds and raised them until they were nearly ready to fly and I believe they remember me."

The conversation had drawn quite a little crowd about the eagles' cage.

"Now," I said, "to prove to you that those birds remember me I will disappear in the crowd and approach the cage from the opposite side." This I did and the eagles came across to me and got as near as possible. I asked the keeper to favor me with a piece of meat that I might feed the birds. He told me it was against the rules of the park for visitors to feed the birds or animals, but as it was nearly feeding time he would get the ration which was allowed the eagles and allow me to feed them. I have never visited the park in Spokane since and do not know if the birds are still there or not, but have no doubt they are.

I saw a Golden Eagle throw a yearling

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goat from the top of a very high cliff in the Selkirk Mountains of British Columbia in the spring of 1898. The eagle swooped down, grabbed the goat by the back as it passed and threw the animal violently to the ground, where it rolled over the cliff and was dashed to death on the rocks below.

Whether this method of catching game is common among the Golden Eagles of the Canadian Rockies or whether it is merely practiced by a few individuals I do not know.

One of the worst frights I think I ever had in my life was caused by one of those birds. I was sitting on the top of a very high cliff on the head of one of the tributaries of White River, in the Kootenay District in British Columbia. I was sitting quite near the edge of the cliff, which was several hundred feet high, looking on the opposite mountain side for mountain sheep, when suddenly an eagle darted at my head. Had this bird caught me in its talons as it went by I would have been jerked over the cliff and killed. I think I must have been mistaken for game of some sort and the eagle discovered its mistake when only a few feet away. I distinctly felt the rush of air as its body passed by.

They go many miles from their nesting places to hunt, for I have seen them far above the tops of the highest peaks carrying game and have watched them until they became mere specks in the distance.

Whether they would really attack a human being or not I do not know, for I have never heard of an incident where any one had been injured by one of those birds. I believe there is a species of the Golden Eagle in the Swiss Alps that has the reputation of attacking small children, but I have never heard of one of our American birds attempting to carry away a child, although there is no doubt they would be able to do so, for they are very powerful and have a wing spread of eight feet.

I cannot agree with others that we ought to make a special effort to protect the Golden Eagle, because they are destructive to the life of valuable game animals, and if game was not to be had they would not hesitate to attack the young of domestic stock, such as sheep and hogs or even calves if they were very young.

Birds of prey differ so widely from our feathered friends that it seems to me a mistaken sympathy to make a special effort to preserve the species that are destructive to other forms of bird life and game animals. They should be classed in the same category as the wolf, the mountain lion, and the wild cat. While it is a fact that they might destroy some of the smaller rodents that are a menace to mankind yet they themselves, through their destructive habits, destroy so much valuable life that it will overbalance all the good that they may do and this is the case with the Golden Eagle.

One pair of Golden Eagles in rearing a brood of young would probably kill, at a very conservative estimate, twenty young mountain sheep or goats, besides other small animals, so you can see at a glance that if a few pair of these birds were nesting in a district what it would mean to a small herd of mountain sheep or goats. They also pick up the young of deer when the fawns are small and can be carried.

There are two sides to the life and habits of all predatory animals and birds and it is only by close observation and impartial judgment that we can arrive at any just conclusion as to whether the good they do by destroying noxious vermin is greater than the harm done by the destruction of valuable game and insectivirous birds and animals. While it is a fact that the Golden Eagle inhabits the rougher parts of the mountains and seldom

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comes into the valleys and settlements, it is a constant menace to the lives of our valuable game animals which we are endeavoring by good laws and considerable expenditure of money to preserve from extinction.

The writer is a firm believer in the preservation of our wild things but one's education is never complete until he knows all of the life history and habits of the wild things with which we come in contact. Each and every one has its place in the economy of nature, but by the encroachment of man upon their haunts, circumstances are so changed that many of them are no longer necessary to keep a balance in nature, and they are only hastening the day when many of our valuable birds and animals will disappear completely. It is only by strenuous effort and wise laws that we are prolonging the period and giving life and liberty to such animals as the mountain sheep and goats, and all of the species of the deer family, the beaver, the grouse, and wild water fowls, and it seems to me that we are defeating our own aims by offering protection and false sympathy to certain forms of the carnivorous animals and birds.

When the red man owned this vast country in its primitive state, although he lived chiefly upon the flesh of game animals and birds and fishes, at no time did he take the life of animals except for food or clothing. Had the red man in the days of old shown himself to be such an implacable enemy of all wild creatures as the white man has shown himself to be since he replaced the Indian, we would not to-day have the valuable species we have.

We have outlawed a number of species of animals and birds and reptiles such as the Copperhead, Rattlesnake, Moccasin, Black Footed Ferret, Weasel, Wild Cat, Wolf, Coyote, and Panther, and we no longer think of these animals and reptiles as entitled to any of our sympathy or protection simply because we know that they are a detriment to man's interest and are enemies to valuable birds and animal life.

To say that you are a friend, in any sense of the word, to the animals and reptiles mentioned would be inconsistent, to say the least. Of course where they are found away back in the wild mountains of the Northwest or upon the baked deserts of the Southwest, or in the swamps of the South, where white man seldom or never goes, we can entertain a somewhat different opinion of them because we do not come in direct contact with them, but as soon as they become our neighbors any sympathy on our part becomes misplaced because they are a menace to our lives and interests.

The Golden Eagle destroys great numbers of smaller rodents, which if they had the opportunity would be very destructive to agriculture, but, in the home of the Golden Eagle those rodents are entirely harmless, so that we can hardly claim any benefit from their destruction. But no matter how wild and inaccessible the country may be the Golden Eagle, when it destroys the young of our larger game, such as the deer, mountain sheep and goats, becomes a menace.

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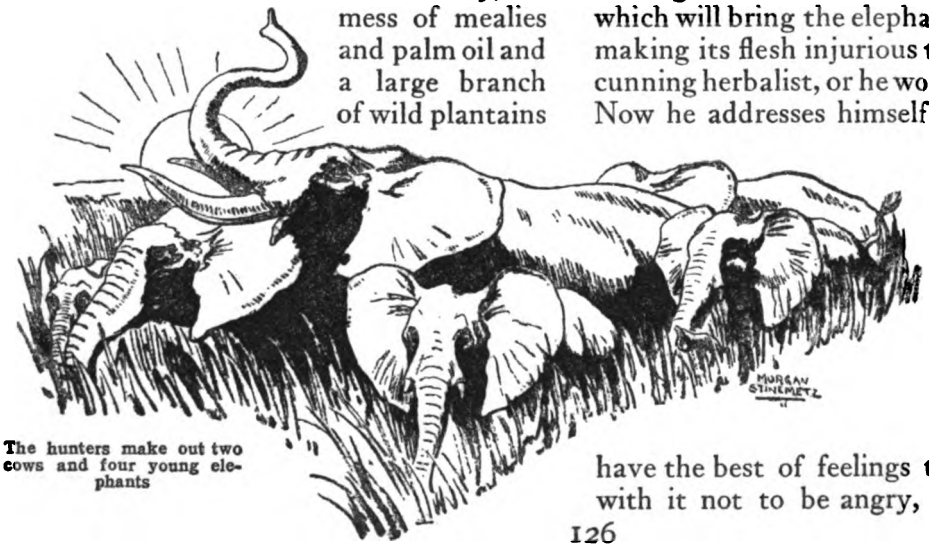
The Elephant Hunt

By Thomas S. Miller

Illustrated by Morgan Stinemetz

THE cluster of thatched huts appears against the high mangroves less like human habitations than bee-hives. In the open center of the village the witch-doctor is out with his pots and cauldrons and full regalia of his high office, a long cloak of feathered hens' skins and a leopard's skull for head-dress, and hung all over him are charms against every evil that exists in the fearsome imagination of primitive man. On a trestle of sticks four feet high is the dried head of an elephant—an enormous head. Five long arrows are stuck in the sand, and five junglemen bow their woolly heads to the ground, their huge shoulders and enormous chest development—the result of living so much at their paddles—giving them the appearance of monster black toads. A calabash of wild honey, a mess of mealies and palm oil and a large branch of wild plantains testify to their votive offerings or payment to the wizard for his necromancy, for they go to hunt the elephant and they want charms and sundry magics.



The hunters make out two cows and four young elephants

The wizard proceeds with an impressive solemnity and a profound absorption that suggests that he is the dupe of his own hocus pocus. His guttural chant floats on the jungle quiet to the white trader across the river, whose familiarity with such scenes leaves him disinterested, except for a contemplative prospect of bartering scented pomades, fishhooks, leaf tobacco and such for a couple of sixty-pound tusks in a day or so. The wizard takes the five arrows one by one, and dips their heads in a pot and lays them to dry in the sun.

This is the first move in his magic against the pachyderms. He makes "death magic," coating the arrow heads with a poison which will bring the elephant down without making its flesh injurious to man. He is a cunning herbalist, or he would be no wizard. Now he addresses himself in humble supplication to the elephant's head, or rather, to its spirit. He has quite a one-sided conversation with the spirit; cunningly assures it that he and the hunters have the best of feelings toward it, pleads with it not to be angry, that the hunters

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have no enmity towards it, but—the village needs meat.

This is quite logical to the blacks' way of thinking. There is both good and evil in the world, and one is as necessary as the other, and sometimes one has to do evil to do good. The Ruling Spirit made the world so. The mournful monotone cadence of his supplications distresses the trader across the river, why he does not know. He is a "palm oil ruffian," materially concerned in palm kernels, rubber, ivory and gums, and quite incompetent to trace his depression to the picture of Man, the Image of his Maker, cowering in abject submission to dark superstition. The wizard makes votive offering to the elephant's spirit, reverently placing on the trestle little bunches of grass and a few plantains.

Now he takes a small pot, makes passes over it in the air, then digs out some mess and rubs it into the skins of the hunters. He is making "invisible magic," which renders the hunter invisible to the elephants. More likely he has rubbed in a smelling herb that will fool the elephants' keen scent for man, and on which its safety depends, for nature gave the huge beasts tiny short-sighted eyes.

The five hunters rise. They say good-by to their wailing relatives. They are bound on a terrible journey into the spirit-haunted blackness of the jungle. Only their implicit faith in the magic of the witch-doctor makes the perilous adventure possible. But what is this? A woman throws herself on a hunter, calling him "son," and she shrilly reminds him that he has an "Ibet"—a tabu laid on him at birth. He was born on the trail in an afternoon, and therefore the trail is deadly to him when the sun travels towards the west.

The five hunters sit down on the sands.

The blacks trail single file out of the giant mahoganies like a colony of ants on the march

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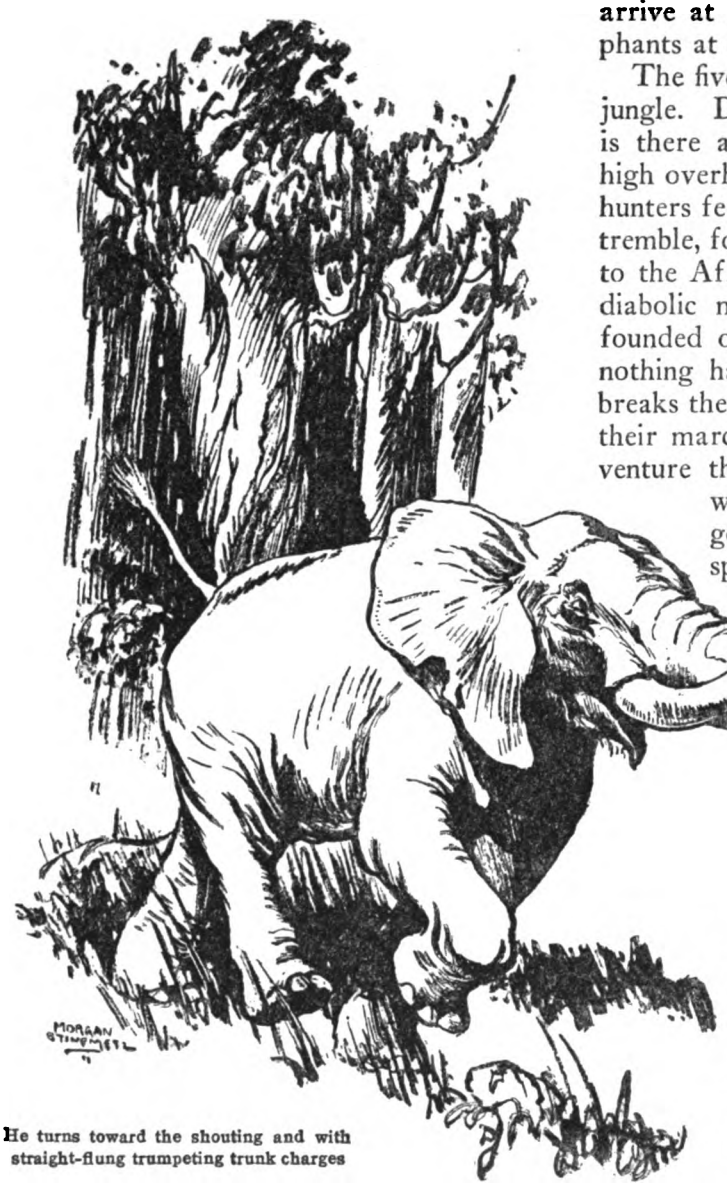
They do not talk, they do not think, but sit there passively, with the patience of the savage.

The shadows of the mangroves lengthen. Now their drooping tops are painted with sundown glow. The jungle begins to waken from the catalepsy of the sweltering day; a parrot screeches, and somewhere a raging baboon beats clenched fists on its inflated chest.

The five hunters rise, take up their bows, take up their poisoned arrows. The wizard hands one a tom-tom—to announce to the village the kill. They bow low to the elephant's head, then draw erect and in single file go into the jungle, whose night is but little darker than its day. They will arrive at the feeding grounds of the elephants at daybreak.



He turns toward the shouting and with straight-flung trumpeting trunk charges

The five blacks go all night through the jungle. Does a leaf fall, a twig snap, or is there a whisper in the foliage, which high overhead shuts out the stars, the five hunters feel the presence of evil spirits and tremble, for nothing just naturally happens, to the African's way of thinking, but has diabolic meaning. His very religion is founded on Fear. But for long periods nothing happens; no thought or emotion breaks the mechanical, effortless rhythm of their march. Were they not on perilous venture the man who carries a tomtom would drum them along, but they go to kill elephant—to release a spirit, and all the spirits must know of their intention and be angry.

The light of dawn shows ahead, where the jungle meets the open feeding grounds of the elephants. By the time the hunters get there the sun is painting yellow the high grass, which is as high as their heads, and reaches almost to the backs of seven elephants, grazing in the middle of the plain and looking like nothing so much as seven overturned derelict hulls

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in a yellow sea, out of which rise sinuous lengths of a sea serpent, or, rather, the hand-nose trunk of a bull elephant with a pair of gleaming sixty-pound tusks. The bull trumpets to the sun, as joyously, if not as melodiously, as lark sings to the morn. The hunters make out two cows and four young elephants. The thrill of the hunt—a thrill as old as Adam—tingles their blood. Five minds working as one pick the bull for their arrows. Five minds working as one wordlessly decide the strategy.

They weave grass around their heads and make a kind of grass veiling for their faces. Now they shout at the top of their lung power—a prodigious shouting. The result is foreseen. The cows and immature elephants are stampeded in the opposite direction. But the bull shoulders the courageous duty of paterfamilias when danger threatens. He turns toward the shouting and with straight-flung trumpeting trunk charges. One hunter stands his ground, shouting. The others, two and two, slip into the grass, to either side of the line of the bull's charge for the intrepid shouter.

The smelling herb—the "invisible magic"—which the wizard rubbed into their ebony skins fools the elephant's keen scent for man. Two hunters get on the backs of their companions and are elevated to the level of the grass, and it would take eyes keener than those of the short-sighted elephant to discover them under the "protective coloration" of their grass head-coverings. The two top men fit arrows to their bows, and, steadied by the hands of the supporting men, they stand upright the instant the charging bull shows its flanks and let fly at the thinner skin on the inside of the legs. One arrow lodges high up on the inside of a foreleg, another zips into a hind leg, close to the belly.

The beast stops in its head-on charge, swings about and stands there, confused by the shouting that proclaims the enemy near the jungle and therefore cannot account for the unseen attack from behind. The smart of the arrows annoys him. He pulls the one in his foreleg and throws it savagely in the air. The hunters, spying through their grass veils, exult to see the arrow drip blood, for that ensures the working of the "death magic"—the poison. The bull tries to reach the torment in its hind legs, but succeeds only in working the barbed arrow in deeper. It breaks off close to the head, and that is fatal.

Its raging defiance fills the small plain and reverberates through the enclosing mahogany forest. In blind fury it turns and charges in the direction whence the shouting had come. But the black there had vacated the spot and was sidling through the grass towards his companions. The great beast threshes around, then charges back to where it received its injury and begins running in widening circles, looking for the enemy. The five hunters, drawn away from the danger zone, laugh in their hearts to see the beast wasting his strength and giving the poison time to work through his blood, for the longer he runs there in circles the less trailing will they have to do. For half-an-hour the bull threshes around, then sets off in an easy, swinging ten-mile-an-hour trot after the herd. Its trumpetings die away in the forest.

The blacks sling their bows and fall into a dogged lope on the quarry's trail. They know they may have to keep going thus for several days, but place their hopes in the "death magic," which will induce a mad thirst, and then the elephant will turn back to the river. But ill luck or bad luck they will accept with the fatalism of the African.

All the burning day they lope along, through the sweltering darkness of the forest, taking encouragement from a zigzag-

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ging of the spoors, which reveals that the bull is beginning to feel the effects of the poison. Near sundown they hear again the trumpeting, but it is not now the steady raging defiance of the morning, but the feeble, intermittent complaints of sickness. And it is coming towards them. The elephant is thirsting and making back to the river.

The five hunters sit down, eat placidly of plantains and patiently wait.

Down the columned mahoganies looms the swaying monster, lurching from side to side like a drunken navvy. The sight stirs no pity in the blacks, but moves them to cross their thumbs in charm again intangible evils. The bull lurches past. They rise and take its trail back to the feeding grounds and on to the river, where they find the bull at the water's edge, half-asprawl on its belly, dying.

One man takes the tomtom and sounds it close to the oily sliding river. The elephant makes a feeble struggle to rise against the enemy, but the poison has done its work. It is an opiate poison, for the beast gives no groans of pain, but sinks quietly into the long sleep. The man with the tomtom bends an ear close to the water, and presently he hears the faint answering drum of the village.

The five hunters sit down and await the coming of the people and the wizard—particularly the wizard, for the spirit of the elephant is abroad and they are afraid.

The blacks trail single-file (so like the animals in his habits is primitive man) out of the giant mahoganies—men, women, boys and girls—like a colony of ants on the march. Every soul of the village able to make the all-night journey through the jungle comes to the kill. The wizard's long cloak of hens' feathers sweeps the ground at the head of the column; as he steps into the open plain the morning sun glints up his many charms. An assistant behind carries a small clay image of an elephant on a long stick.

The five hunters rise with great relief from their night-long vigil by the dead elephant, with only a couch fire to frighten off the carrion-scented animals, and no protection at all from the elephant's angry spirit. Heroes they are of a terrible vigil. But now the wizard is come, with most potent Ju-Ju.

The necromancer approaches the monster carcass at the river's edge with low bows and flattering talk to its spirit. He pleads passionately with the spirit not to be angry. Then he takes mud from the river and steals up behind the great head, reaches over and daubs the mud over the glazed eyes. The blacks keep a reverent distance, humped to the earth like fighting cats. The assistant places the sticks with the clay image upright in the sands. The wizard lays his charms on the ground—strings of cowries, a human skull and balls of foul concoctions moistened with the spittle of toads, he lays out his Ju-Ju medicine, and then croons a long invocation to the elephant's spirit. He is engaged in magic of tremendous importance to the well-being of the village. He is placating the spirit of the elephant and conjuring it into the clay image; enticing it into the image with promises of a nice home for it, and a vow to feed it, and for many, many moons he will offer the image little bundles of tender grass and plantains. If he fails to entice the spirit into the image it will avenge itself on the slayers of its body, and the meat will not be fit for the people, for the spirit will dispossess the body of a sleeping elephant and then go on a tear, rooting up the village yam patch, charging through the flimsy huts, destroying, killing, maiming. The whole adventure hangs on his Ju-Ju. His earnestness and complete engrossment suggest that he, too, believes in his own cultism.

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Apparently he is successful in enticing the spirit into the image, for he takes the sacrificial knife and cuts the jugular vein of the elephant. He forbids the people to drink of the blood. "He who drinks of the Blood drinks of the Spirit, for Blood is the Life." Perhaps the herbalist knows that the poison coating he gave the hunters' arrows has rendered the blood unfit for man, whilst leaving the meat untainted; but he prefers to be secretive and to exalt his Ju-Ju, but that is the way of medicine men the world over. The blood is drained in gourds and poured on the dry sands around the image. Then the men attack the carcass with ground-down machetes. The tusks are hacked away, the head cut off and burned in sacrificial fire before the image. Meantime the women and boys and girls, all in the garment of nature, pull grass and build many smoke-fires, over which are strung gut strings. They work like ants, in going and coming streams, the returning streams all loaded, the going workers getting out of their way.

A smell of blood lies sickeningly on the stagnation. But it is a smell loved by animals and animal-men. The men hack away the flesh, swarming over the monster carcass like flies on a dead dog; they cut long strips, which they fling backwards over their shoulders to the mob of women and boys and girls, who snatch the strips out of the air and wash them in the river of every suspicion of blood and hang over the smoke-fires.

The smell of blood goes forth on the still air, rousing the keen-scented hunger of leopards, jackals, buzzards; it leaks to the river, and long, horny snouts and small, cruel eyes float on the dappled surface of the water. The spotted leopards slink through the yellow grass, but must wait

On a trestle of sticks four feet high is the dried head of an elephant—an enormous head

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a bone picking when man is through. Bolder are the domestic scavenging buzzards; they come down the air in eager flight from a hundred villages and make a great whirring, voracious cloud above the carcass. At times one drops—beak and talons extended—and snatches a morsel and tries to gobble it down in hurried flight, pursued by its voracious fellows, till its strength is spent and it drops the prize, which is snatched in mid-air by another, and a fresh pursuit is on. They are bold in their friendship with man. Boys with long sticks beat them off the smoking flesh, and all the time the horny snouts and tiny cruel eyes on the river surface glide in closer and closer, whilst the angry snarls of the leopards tell their impatience. Man, bird, beast and reptile are drawn to the kill by the same primary meat hunger; but only man has thought to placate the spirit.

All day the blacks toil under the burning sun. As the meat dries, the boys and girls load themselves and set off for the village, the older boys with spears, to fight off the ravenous beasts.

At sundown the work halts. Fires are fanned into flames, to frighten off the prowling animals, spearmen beat off the crocodiles and buzzards. Around the fires the blacks crouch, eating flesh, and then the five hunters tell of the hunt. They speak through their frightened imaginations, so it is a long Munchausen story, not of what actually happened, but of what might have happened were the world peopled by evil spirits.

The Cleverest of Woodchoppers

By Edwin Tarrisse

IN the timber-hauling department of the forest service of India and elsewhere in the East the elephant has proved himself to be an eminently useful workman. His combination of enormous strength and high intelligence is very valuable when he has to cope with the giant trees of the dense jungle.

Bunda, of whom an eminent Englishman, in the service of his country in India, has told, was a particularly valuable elephant in this respect. The official mentioned often saw him working when a huge tree had to be felled. On one such occasion, the tree was of such height and girth that it would have been risky for the men to be anywhere near at the last, in case it should give way too suddenly, or lurch over sidewise. It could not fall backward, so Bunda's business was to push it over, when the two axmen had hewn deeply enough to make that possible. When that moment had come the elephant was to be the judge.

He knew by trying with his forehead how great a resistance the tree still offered.

It was interesting to see him standing there, with his grand head pressed against the trunk, every muscle in his body taut; but only for a few seconds, in order to waste none of his strength. Then, if his judgment declined the task, he would step aside for the axmen to put in another ringing stroke or two; and again it was their turn to stand by while Bunda made another trial. He knew the importance of attacking the weakest point, and brought all his strength to bear on that. As soon as he was satisfied, the men were, nor would they have dared to give a single extra blow. Not having his intuitive knowledge they left everything to him, their own safety included.

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Meeting a Rocky Mountain Lion

By "Old Pioneer"

IN the late Autumn of 1872, old "Buckskin Harry" and the writer were returning from a hunting trip on the headwaters of the Caché la Poudre River near the boundary line between Colorado and Wyoming.

Our outfit was a long-coupled buckboard drawn by a pair of well-broken cayuses, as we had learned from experience that by this method of travel we could go into the roughest sort of country, and where it was inaccessible to the buckboard, we could use our cayuses under the saddle; it also enabled us to bring home the trophies of our hunt with less difficulty than by the use of pack ponies.

Our trail followed the serpentine course of the river and one afternoon we were urging our tired ponies to gain, before night overtook us, an ideal camping ground where there was a fine spring, plenty of dry wood and good forage. This desired haven was about five miles ahead of us by trail, at the far side of a great bend of the river which here made its way around a steep ridge or hogback, though directly across the ridge it was less than two miles distant.

At this point, it was suggested that I should take the shot gun, walk across the ridge to our proposed camping ground and if possible secure a grouse or two for our evening meal. Slipping a couple of 4 shells into our Parker, I was about leaving the wagon, when old Buckskin called me back, with the remark that I might see "something bigger than grouse," and had better take my 45 Colt. I protested against this additional load but old Buckskin at this point gave me some advice which I never forgot.

"Young man, you're in God's country, but you're a long way from the City of Brotherly Love, and you never want to go out of reach of your gun; you may not need it every day, but when you do, you'll need it bad." So I laughingly accepted this unpolished advice, and buckled on my heavy belt, carrying Colt and hunting knife.

I had gone but a short distance from the trail when I came upon a large covey of grouse, flushed them, fired one barrel, killing two fine young birds. Fastening them to my belt and congratulating myself on the good supper in sight, I continued my way toward camp.

The ridge was very much broken with alternating gulches and smaller ridges and as I came to the top of these I instinctively, as experienced hunters always do, took a look at the lay of the land ahead. I had almost finished my journey across the main ridge and could see Buckskin coming up the river with the team; it was getting dark and as I topped one of the last small ridges I hastily glanced across its shallow gulch and noted an old cedar tree growing beside a small ledge of rocks on the opposite ridge; it was directly in my path and as I looked again to choose my course, my eye

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caught a slight movement near the ledge: and a closer inspection revealed the form of a large mountain lion, crouched as if ready to spring, her great tail lashing the air in evident anger. I quickly surmised that I was facing a female lion with cubs close by, if so I was in for more trouble than I cared for. In early days, before repeating rifles came into the contest, the denizens of the Rocky Mountain country did not have the fear of man in their hearts as they have to-day, and, under provocation of wounds, in defense of their young, or when made desperate by hunger, they would attack man as quickly as any other foe. But the deadly repeating rifle has changed even the once savage grizzly into a coward who, unless forced into a position of self-defense, will run like a jack rabbit at the approach of man.

The great cat which now confronted me showed no disposition to retreat, but rather a readiness to attack in defense of her young. She was less than 50 paces from me. How I now longed for my trusty 44–28 Winchester, with its 17 cartridges in the magazine! I had but one load of bird shot, my six-shooter Colts and my knife. It was a moment for rapid thinking and quick action. Strange to say, one of the first thoughts that came into my mind was a vivid recollection of the great white scars I had once seen on the breast, arms and thighs of "Cherokee Bob," who, after a desperate fight had killed a wounded Rocky Mountain lion with his hunting knife. He never fully recovered from the contest, was lame for life and one arm almost useless, though his services were still valuable, as a scout and guide.

While hesitating as to just how I might avoid trouble, I noticed a slight depression near me filled with a coarse granite gravel, which had been washed there by rain and melting snow, and an inspiration flashed through my mind. Why not put a handful of that gravel on the top of the load of shot, at close range it would make a dangerous, perhaps fatal wound. Acting on the impulse I stepped forward and stooping down gathered up a handful. The movement seemed to arouse the lion's anger, very much as picking up a stick or stone angers a savage dog. With a weird cry the great beast made a spring down the bank and across the ravine. Hastily pouring the gravel upon the load of shot, without a retaining wad, I threw the gun to my shoulder and fired.

The lion sprang high into the air, whirled half-way round, pawing frantically at the side of her head; the shot had torn out an eye and wounded her shoulder and side. In a moment, however, she again caught sight of me and charged up the bank with giant bounds. Dropping the empty gun, I hastily drew my big Colt and throwing it across my left forearm began firing as rapidly as possible. Two shots missed and two hit but failed to stop her; she was now less than 20 feet from me and in another leap would have been upon me, when my fifth shot struck her directly in the throat, tore its way into and shattered the spinal cord. She fell over on her side, gave a few convulsive struggles and was dead. I was a badly demoralized man, and must have looked the part, for when old Buckskin came up, attracted by the rapid firing, his first greeting was:

"Man, you look as if you were just comin' out of a fit, you're white as a jack rabbit in January! What did you want to tackle that varmint for without a rifle?" I assured him that I had not sought the fight, and explained just how it happened.

"Well," he said, "you're lucky to git out with a whole hide."

The lion was an unusually large one, but the shots had so mutilated the skin that it

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was worthless as a specimen, so we hurried back to our camping ground and our supper. I had been ravenously hungry before the encounter with the lion, but now found myself too excited and nervous to eat.

Early next morning we went back to the ridge and found one of the cubs, which we roped, hogtied and took with us to Cheyenne, where he grew into a splendid specimen of the big cat tribe. For a long time he was confined in a large cage at the Railroad Hotel and was greatly admired by Eastern tourists coming through on the overland express. However, he developed a very savage disposition, and one day reached through the bars of his cage and terribly lacerated the breast of a poor unsuspecting emigrant, who had ventured too close with a kindly intention of offering him a piece of limburger cheese. It was then decided to send the lion to an Eastern Zoo, where no doubt he became a valuable attraction under safe conditions.

With the rapid advance of civilization, the Rocky Mountain lion has proved so destructive to the life of domestic animals that most of the far Western states have placed large bounties on his head, and he is now hunted so persistently with traps, poison, dogs and repeating rifles, that he has degenerated into a sneaking coward and will climb a tree to escape from a cur dog. And his once favorite haunts will soon know him no more.

Antelope Heliograph

By Edwin Tarrisse

A WELL-KNOWN naturalist, some years ago, while riding across the upland prairie of the Yellowstone, noticed certain white specks in the far distance. They came and disappeared several times, and then began moving southward. Then, in another direction, he discovered other white specks, which also seemed to flash and disappear.

A glass showed them to be antelope; but it did not explain the flashing or the moving, which ultimately united the two bands. He found no explanation of that until the opportunity came to study the antelope in the Zoo at Washington.

He had been quietly watching the grazing herd when, contrary to rules, a dog chanced into the park. One animal glanced up from its grazing, uttered no sound, but gazed at the wolfish-looking intruder, while all the long white hairs of the rump-patch were raised with a jerk that made the patch flash in the sun like a tin pan.

Every one of the antelope saw the flash, repeated it instantly, and raised its head to gaze in the direction where the first was grazing. At the same time, there was noticed on the wind a peculiar musky odor. Some time later, when an opportunity came for dissecting an antelope's rump-patch, the naturalist understood the phenomenon.

Among the roots of the long white hair growing there is a gland secreting a strong musk, and under the skin a broad sheet of muscular fibers. As soon as the antelope sees some strange or thrilling object, the muscle acts, and the rump-patch is changed, in a flash, to a great double disk, or twin chrysanthemum, of white, shining afar like a spot of snow.

In the middle of each bloom a dark brown spot, the musk-gland, is exposed, a great quantity of the odor is set free, and the message is read by all that have noses to read.

The naturalist then knew that the changing flecks in the Yellowstone uplands were made by this antelope heliograph.

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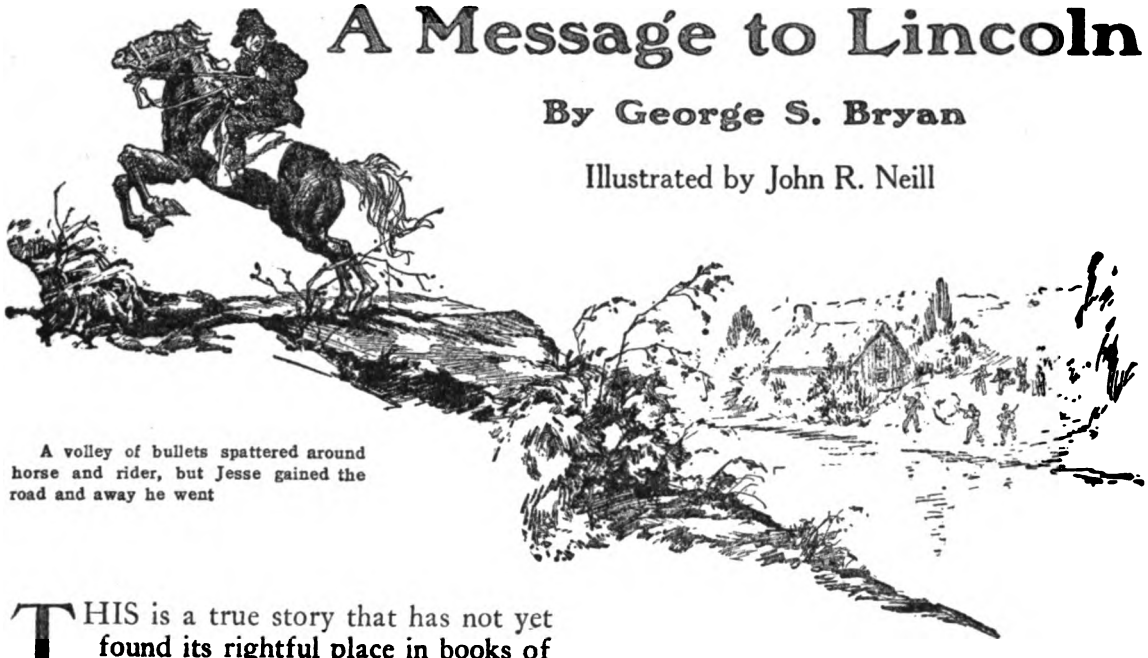
A Message to Lincoln

By George S. Bryan

Illustrated by John R. Neill



A volley of bullets spattered around horse and rider, but Jesse gained the road and away he went

THIS is a true story that has not yet found its rightful place in books of history. It is a story of a spirited horse; of a plucky youth; of two famous men in a crisis of our nation's history. It is a story of lone adventure, ready wit, and duty done. In the Spanish-American War, Lieutenant Rowan won fame when he carried a message to Garcia. In the Civil War, Henry Wing, the young correspondent, made no less thrilling a journey, and carried a message to a greater than Garcia.

When was it? In May, 1864. But we should go back of that a bit, to learn a little more about Henry Wing and about the events that led up to that trip of his. From Litchfield county, Connecticut—from Goshen, the loftiest township in the State, Henry Wing had come down to sea-level, and had been studying law at South Norwalk; but in 1862 he enlisted in the 27th Connecticut Volunteer Infantry. In the battle of Fredericksburg he had the bad luck to be wounded twice. When he had recovered and received an honorable discharge, he became one of the editors of a newspaper in Norwich, Conn. Then Horace Greeley asked him to come with the New York *Tribune;* and so, after a while, we find him again with the army—this time as a field correspondent for his paper. He was then just twenty-five.

Assigned to the second (General Hancock's) corps of the Army of the Potomac, he was soon in the thick of events. Grant had been appointed to the chief command; and very early in the morning of May 4, 1864, he set out on the "hammering campaign" that resulted in the capture of Richmond and the surrender at Appomattox. From their winter quarters around Culpeper, 120,000 men slipped away and vanished. South of the Rapidan river, in a country whose thick woods were crossed by miserable roads and broken by only a few small clearings, the terrible three-day battle of the Wilderness began. But nothing of this was known at the North; for communications had been deliberately

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broken, and people waited tensely and vainly for news.

You may read of the battle of the Wilderness in General Grant's "Memoirs" and in many other books. This story is not of the battle, but of Henry Wing's journey. After the fighting of that first day (May 5), the *Tribune's* four field correspondents met at army headquarters for a conference. They knew that Grant's orders were to reform the lines for an attack at daybreak. It was decided that one of them must start northward with reports. All were aware of the difficulty and the danger. By morning there would be no Federal troops from the Rapidan to Bull Run; and through that region wandering parties of the enemy would be passing. Of the four correspondents, Henry Wing was the youngest; and he promptly volunteered.

He strolled around to the corral and gave instructions that at three next morning his horse, "Jesse," was to have a liberal breakfast and at four was to be saddled and ready. Jesse was a real Kentucky thoroughbred, that Henry Wing had from Captain Cline, General Meade's chief-of-scouts. Scouts always had the best mounts in the army. Then Henry went straight to Grant's headquarters, and asked if there was any message for the people of the North to be included in the dispatches to the *Tribune*.

"Well, yes," answered Grant. "You may tell the people that things are going swimmingly down here."

Henry jotted down the exact words in his notebook, thanked the general, and turned away. He could not help smiling a little, for the general's words were likely to be somewhat misleading. He had taken but a few steps when Grant rose and joined him. Once they were out of earshot of the others at headquarters, the general laid a hand on the young fellow's shoulder and inquired, "You expect to get through to Washington?" Henry Wing said that he would surely start at dawn, and that he expected to get through.

General Grant stood quietly facing Henry; and something in Henry's look or manner must have satisfied him, for he said in a low but clear tone:

"Well, if you see the President, tell him from me that, whatever happens, there will be no turning back." A handshake followed—and that was all.

At four next morning, Henry was in the saddle. In his saddlebags were reports sufficient to fill an entire page of the *Tribune;* and strapped on behind them was a mess of oats for Jesse. Henry was dressed as became a correspondent of an important journal. His jacket was of fine buckskin; his trousers were of corduroy; while a dark felt hat, calf-skin boots, and kid gloves completed his attire. It is doubtful whether he could have gone very far in safety in that rig. When he had crossed the Rapidan with the second corps on the morning of May 4th, he had had for companion a Mr. Waud, who represented *Harper's Weekly*. He had ridden with Waud along the south bank of the river to some silver mines, where a Mr. Wykoff, a friend of Waud's, was staying to look after the properties on behalf of Northern owners. Had it not been for his age, Wykoff might perhaps have been drafted for the Confederate service. Toward the mines Henry Wing now went, thinking that Wykoff would consent to guide him by unfrequented trails as far as the Rappahannock.

The old gentleman at once pointed out that, as a man known throughout that section to be of strong Union sympathies, he ought not to be seen in Henry's company. Then he prevailed upon Henry to exchange the buckskin jacket, the corduroy trousers, and the rest of that original outfit, for a "butternut" suit, a shocking hat of quilted

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cotton, and a pair of clumsy brogans. A "butternut" suit was so called because it was made of coarse homespun cloth, dyed with the juice of the butternut. In the latter part of the war such suits had become very common in the Confederacy; they were even worn by soldiers for whom there were no uniforms. Before he had gone far, Henry was destined to be glad that he had made this transformation in his appearance.

Then Mr. Wykoff said that Henry must, if need was, use stratagem, since under the laws of warfare, stratagem was permitted to any one who might thereby serve his country. So Henry was, if necessary, to pretend that his real reason for wishing to get to Washington (and he was frankly to admit that he *did* wish to get there) was that he might convey to Confederate sympathizers in the capital the news of a Southern victory. The old man told Henry the names of a half-dozen persons in Washington who were known to be staunch friends of the South. Even as the two were talking, a troop of Confederate cavalry passed along the opposite bank of the stream. Henry then destroyed not only all private papers by which he might be identified, but also all the precious reports for the *Tribune* and all memoranda or notes containing information that might possibly be of value to the enemy. Bidding good-by to the friend who had helped him so much, he set out on his lonely and perilous way.

"Well, if you see the President tell him whatever happens there will be no turning back"

He intended to cross the Rappahannock by Field's ford. For the first eight miles he met nobody except a squad of Confederate scouts who readily allowed him to proceed. Shortly after that, however, he came upon some of the guerrilla troopers of the well-known Colonel Mosby. Their horses were feeding just outside the fence in front of a house, while the troopers themselves were lounging about the yard. Henry drew rein as they hailed him, and they flocked around him with many expressions of satisfaction at his news of Lee's success. They assured him, however, that it would be dangerous for him (in their own words, his life "wouldn't be wuth a chaw er terbacker") to go on alone, because, they said, the woods were full of stragglers from a Federal division of negro troops. They accordingly gave him an escort of two men. Things seemed, indeed, to be going swimmingly for Henry Wing, even though they were not for General Grant.

As the three rode along, Henry supposed they were bound for Field's ford; but suddenly they topped the brow of a hill—and he saw with dismay that they were not at Field's, but at Kelly's ford. Kelly's ford was named from a Mr. Kelly, who lived near the crossing. Kelly was (as Henry happened to know) at heart

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devoted to the Southern cause; and for two days, while the Union forces were in that neighborhood, Henry had found accommodations at Kelly's house, so Kelly was more than likely to recognize him even in disguise. He therefore told his escort that they might now turn back, and then he started for the ford, hoping to get across unobserved. Unfortunately, Kelly was standing on a knoll above the house, listening to

The terrible grumble, and rumble, and roar,
Telling the battle was on once more. . . .

At sight of a horseman he hurried to the road. Henry drew down the brim of his quilted cotton hat over his face as well as he could, but Kelly had recognized him and tried to seize the bridle. At a touch of the spur, Jesse leaped forward and dashed into the river. He missed the ford, but swam right on through deep water to the upper bank. Kelly shouted vigorously after the departing guerrillas, and they, with two other mounted men, rushed toward the ford. By that time, however, Jesse was scrambling up the steep bank on the other side. A volley of bullets spattered around horse and rider, but Jesse gained the road and away he went.

Jesse was a horse hard to overtake, and the river was at his back; but Henry Wing knew that he would be pursued and that Jesse should be urged to the best possible gait. At the left, a woodland path led into thick timber, and he decided to take that path. It was a mistake. He should have kept on eastward. In a few minutes he burst from the woods into a clearing, and found that he was at Rappahannock Station on the Orange and Alexandria Railroad. Around the station was a crowd—at least five hundred persons, Henry thought—men and women, old and young, loading upon wagons and carts a miscellaneous lot of military supplies that had been abandoned when the Union Army advanced. Through this crowd Henry rode slowly, returning all salutations. Once beyond the station he took a road to the right, but so crowded was this road with vehicles and with mounted men that he could not go forward faster than a walk. If anybody wished to exchange a word with him, he had to stop, and several times he was halted by Confederate patrols. With such loss of time he realized that, not far behind, his pursuers must be gaining on him. Quickly he determined that he must leave the faithful Jesse and cover the remaining distance on foot. But Jesse must not only be left—he must be hidden.

It chanced that a little way from the road was a grove with dense underbrush. Henry watched and when no one was in sight led Jesse to this shelter. There he removed and hid the saddle, poured out the mess of oats upon the ground, tied the horse to a branch, and regretfully turned to go. As he was about to step out of the grove there was a rat-tat-tat of hoofs, and a dozen men went galloping by, Mosby's two troopers in the lead. He had been none too soon.

Gaining the railway track, he started along it for the Union lines near Washington. When Confederate parties passed near by, he plunged down into the grass. At Warrenton Junction, just as at Rappahannock Station, a crowd had collected and was gathering up the leavings of the Federal camps. It took Henry an hour to make a detour around the place.

Keeping on, through a cut on the railway line and around a curve, he was abruptly face to face with an armed man in a blue uniform. At first he thought the man might be one of Mosby's guerrillas, for they frequently disguised themselves as Federals. "Halt!" was the command—

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and the soldier proved to be a private in a Union regiment that was stationed to guard the bridge over Cedar creek and that, by an error, had not received orders to break camp and join in the general advance southward. It was an infantry regiment, with no large guns; but earthworks had been thrown up and mounted with "Quaker" cannon—logs blackened and set so as to imitate real cannon, which they did sufficiently well when seen at a distance. At this camp Henry got a good meal. Several Confederate parties were in sight; and so that he might play his part more convincingly, he arranged with the soldiers that they fire several shots after him when he left the camp. This they did, and Henry made a stirring "escape" across the bridge over the creek. He followed the ties without further incident, and in the late afternoon reached Manassas Junction. There he found a camp of Confederate cavalry—an outpost detailed to watch for any possible incursion of Federal troops from Washington into the country toward the Rapidan. The Confederates were thoroughly alert, and Henry thought the best thing to do was to walk boldly into the camp.

It turned out that the major in command was absent. The lieutenant who was temporarily in charge of the camp refused to allow Henry to pass. Three hours or more went by. It seemed possible that at any moment somebody might reach the camp with a description of a fugitive in a butternut suit and a quilted cotton hat. Henry was being politely entertained at headquarters, but in such entertainment he had not the slightest interest. Dusk fell, and then, having awaited his chance, he crept out between the guards and for the Bull Run creek made as fast as he could. This was six miles away. At last, somehow, he reached the trestle over the creek—picked his way across it in the darkness—and heard the challenge of a Union picket. He had arrived at the Union lines.

The picket sent him to post headquarters at Union Mills, close by. There he found that he was the first correspondent to get safely through. He was, in fact, the only one that did, although three or four others, representing various papers, had started, as did Henry Wing, in the gray of the morning—that morning which now seemed so distant. The nearest public telegraph station, Henry learned, was at Alexandria, twenty miles from Union Mills, and this would close at midnight. It was already nine o'clock. Henry knew the value of the news he carried—he was eager to score a "beat"; that is, to get the news published by his paper before any other paper should obtain and publish it. He offered five hundred dollars for a railway hand-car and a man to help him run it, but was told that all hand-cars were government property. He offered a thousand dollars for a horse and a guide to Alexandria, but a horse was not to be had at any price. Back there in a grove in the country below was Jesse, the Kentucky thoroughbred, hopelessly beyond call. What was to be done?

The Federal government had a telegraph wire to Union Mills—a wire solely for military use. Wondering how he might get that wire, even if for but a few words, Henry suddenly thought of Charles A. Dana, who was a personal friend of his. Dana, who soon after the war was to become editor and part owner of the New York *Sun*, was at that time second assistant secretary of war. Henry thought that perhaps he might reach Dana; at any rate he might try. He went to the telegraph office and handed to the operator this despatch, directed to Dana as second assistant-secretary:

"I am just in from the front. Left Grant at four o'clock this morning."

In a short time the receiving instrument

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clicked back a response—but not from Dana. This message was from Stanton, the secretary of war. It read:

"Where did you leave General Grant?"

Was it possible? It must be—even the government did not know what had been happening at the front, did not know that for two days the battle of the Wilderness had been in progress! And the government was asking, through Secretary Stanton, for the news that was stored away under that faded hat of quilted cotton. Henry replied that he would tell the secretary all that he knew if the secretary would in return grant him the use of the military telegraph line for but a hundred-word despatch to his paper.

Stanton's query was repeated—in more peremptory terms. Henry again made his offer and then he said that his news belonged to the *Tribune* and that Secretary Stanton would have to enter into negotiations with the *Tribune* for the release of that news.

Five minutes later, the operator at Union Mills summoned the post commander. The post commander looked at a message that the operator handed to him, then he informed Henry Wing that the word from Stanton was that Henry, unless he uncovered his news from the front, was promptly to be arrested as a spy. There was but one answer. Henry declined to tell Stanton anything. The post commander had to execute orders; but he was a gentleman with a sense of humor. He probably was aware that Stanton was an extremely testy individual. He did not, therefore, have Henry locked in the guard-house. The defiant young correspondent, having given his parole not to attempt escape, received the freedom of the camp.

He stretched out on a bench in the little railway station. He was tired, hungry, and thoroughly disgusted. He had masqueraded as a Southern sympathizer; he had made his way with difficulty across fifty miles of dangerous country; he had been shot at, and chased, and held by the enemy—and all for this! Then in the quiet the instrument began again

Then Henry spoke the message that he had brought from The Wilderness

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to click. Something seemed to tell Henry that there was a message for him. He sprang to his feet. "What is it?" he called.

The operator answered: "Mr. Lincoln wants to know if you will tell him where Grant is."

Long afterward, Henry Wing said of that moment in that little station: "Nothing now was the matter with me." At the other end of that wire was not the waspish and hasty Stanton, but Lincoln—kindly, human Lincoln, whose mind, as Lowell said, was so sure-footed, and whose will was so supple-tempered. The terms that Stanton had rejected, Lincoln unhesitatingly accepted. More than that, he urged that Henry make the report to the *Tribune* sufficiently full to give the public adequate information. He also arranged —with a thoughtfulness that was characteristic—that a brief summary should be furnished to the Associated Press, so that at least the perplexed uncertainty of the whole North might speedily be relieved. Henry Wing stood beside the operator and dictated a despatch that occupied a half-column as printed in the *Tribune* for the morning of Saturday, May 7, 1864.

After a while a locomotive came out to take Henry to Washington. It was about two o'clock in the morning when Henry reached the White House. He was ushered into a room and saw before him not only the President but the Cabinet, the members of which had been hastily assembled. Of a sudden, Henry realized that his brogans were coated with Virginia soil; that his butternut trousers, much too long for him, had been turned back at the bottom and tied with twine; that he was generally disheveled and disreputable looking. He had for a time been the *Tribune's* Senate reporter in Washington, and had probably met every one of this company before, either in private interview or at public functions; yet none of them recognized him—not even Gideon Welles, the secretary of the navy, who was a particular friend. When Henry approached Mr. Welles and spoke the secretary knew the voice, and forthwith Henry was formally presented to the entire circle.

For a half-hour or more, with the aid of a large-scale map that hung on the wall, Henry described the movements of the Union troops and explained the complete situation as it was up to the time when he had left the front. The conference came to an end, and then Henry, turning to Mr. Lincoln, said: "Mr. President, I have a personal word for you." The members of the Cabinet withdrew. Mr. Lincoln closed the door after them and turned toward the young man, to whom he seemed vastly tall. Henry delivered the message in a tone so low that the President failed to catch it. With a short, quick step forward, and stooping to bring his eyes level with Henry's, Mr. Lincoln, in a manner that showed the intensest interest, whispered, "What is that?" Then Henry spoke the message that he had brought from the Wilderness:

General Grant told me to tell you, from him, that, whatever happens, there is to be no turning back.

It seemed to Henry Wing that a new hope had been kindled in that great soul, and shone from those brooding eyes. Other commanders had turned back—they all had. This one was going to go forward, and Henry Wing was the first to convey the assurance of that unshaken spirit. It was not until four days afterward that Grant phrased his intention in the better known message: "I purpose to fight it out on this line if it takes all summer." In the words of Henry Wing, "Mr. Lincoln put his great, strong arms about me and, carried away in the exuber-

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ance of his gladness, imprinted a kiss upon my forehead." Then the two sat down and Henry told the President the details of that appalling first day in the Wilderness—details that might have been almost disheartening, had it not been for those tidings that had been told first.

What became of Jesse? Well, on the next day, Sunday, May 8th, Henry got back to the grove and brought him out. As for Henry himself he rejoined the army at Spottsylvania and was promoted to accompany General Grant's headquarters, so that he was closely associated with the General during the great campaigns that followed.

Boys Who Became National Heroes

WHEN we celebrate our country's independence, how many of us realize that our strong young republic was largely a gift from boys? If we can judge from the ages of some of the officers of Washington's army, many of the rank and file must have been exceedingly youthful.

La Fayette was but nineteen when he journeyed from France and offered his sword and service to the struggling Continental army. Georges Taffe, another French officer, was eighteen; Alexis Beaumont, seventeen. Elkanah Watson, an American, at the age of seventeen was being intrusted with charge of shipments of powder to various places of seige. Viscount Rochambeau, a French nobleman, who, like La Fayette, left the luxury of his life of wealth and ease to endure the privations and hardships in the American army for the sake of an ideal, was but fourteen years old when he enlisted.

One of the most interesting narratives of the Revolutionary War is that of John Shreve, who enlisted at the age of thirteen and fought through six years of the war, except for a few months' leave to attend school, and a very short absence from his regiment when he was stricken with fever. John was one of those lucky boys who was always "there when it happened," no matter what was going on. He was sent on many lonely expeditions to watch for the coming of British troops. He was one of the guard detailed to accompany Andre, the young British spy (whose graceful person and marvelous courage the young guard admired extravagantly) to execution.

John spent the memorable winter with Washington at Valley Forge, where "the soldierly bearing, bravery, and intelligence of this boy then only fourteen years old," to quote a historian, "shown in the different scouting expeditions sent out under his command, so won the admiration of a number of ladies then visiting the army, that with the approbation of General Washington, they presented him with an exceedingly valuable buckle set with precious stones for his sword belt."

Nor was John Shreve the very youngest soldier, for in describing the attack on Quebec when he will still but thirteen, he mentions a comrade in arms, Samuel Shute, "a little younger than I," making Samuel a very young soldier, indeed.

There is a long list of officers from seventeen to twenty years old, among them such noted names as John Trumbull and Charles Pinckney; Steven Mason, a colonel at twenty; Baron de Kalb was only twenty-five when he became famous in defense of our colonies, and John Paul Jones, hero of the sea, twenty-eight when he threw his then veteran experience to the cause of the colonists.

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Old Grey's Last Fight

By David M. Newell

Illustrated by Charles Towne

IF there were two things that Jim Heath prized above all else they were his .30–.30 and his old hound, Grey. Nine years of big game hunting and fighting had left their scars on the old dog's face, although to look into his honest, gentle eyes, one would not have taken him for a fighter. But from the time he had bayed and fought his first bear as a year old pup, Grey had showed such absolute fearlessness that he had won the lasting admiration and respect of dogs and master alike. Jim loved all his dogs but old Grey was a real "pal" and held a place of special importance in the pack.

One afternoon as Jim finished cleaning the old Winchester, and squinted meditatively down the barrel, he noticed that Grey did not show any of his usual interest in the proceedings.

It was midsummer and the old hound lay blinking contentedly in the warm southern sun. Jim puckered up his lips and gave a faint toot, a perfect imitation of the big hunting horn that hung from a nearby peg. The dog did not look up. Jim frowned, "Getting deaf, I reckon. Poor old pup! He's shore had a hard life."

Then he tooted again, this time a little louder. Grey woke up with a start and whined with pleasure. He knew what the horn and Winchester meant, and he thumped his tail anticipatingly. Jim raised the rifle to his shoulder and sighted at an imaginary wild cat just above the cabin door. This was too much for Grey. He lifted up his voice in sheer joy and in another minute every dog on the place was at the door, baying and yelping with excitement. Jim grinned leniently for a moment and then picked up his ramrod and yelled, "Hush up! Who told you all that anybody was going hunting? Cut out that racket or I'll leave every last one of you at home and old Grey and I'll go out and catch the game ourselves." Whether the dogs understood this or not, they understood the tone, and soon scattered, each to find his own particular spot to curl up and sleep.

Jim stood his rifle in the corner and went out to the corral after his old roan mare. A long distance call had come that morning from Dan Larsen, foreman of the Loch Meade ranch, asking Jim to bring his dogs and drive over at once. A big catamount, so Larsen had said, was playing havoc with the pigs and turkeys on the place, and knowing the reputation of Jim and his dogs, the ranchman had come to Jim at once for help.

Jim had hesitated at first because of the warm weather and consequent danger of snakes, but finally consented after much urging on the part of Larsen. After he had hitched up the mare to his little buckboard, Jim took down his horn and blew a long blast.

"Come on, pups," he whooped. "We're in a for a big time to-night. Reckon you

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can stand a good hard run, old man?" he asked of Grey.

Grey leaped up to his customary place on the seat as an answer to such a ridiculous question and wiggled his whole body with joy. Jim picked out four of his best pups, locked the others in their pen amid great protests, and drove off through the pine woods. Loch Meade lay thirty miles to the northwest and it was well after dark when Jim drove up in front of the ranchhouse and called for a light. Larsen came out with a lantern and looked the outfit over.

"Say, pardner," he drawled, "them's shore a fine lookin' bunch of dogs. Where's old Grey? I've heard a lot about that old fellow." Jim held the lantern up proudly and replied, "There he is. The best dog that ever wagged a tail, and he'd rather run a wild cat than eat."

"Well, he'll have a chance to-night," asserted Larsen grimly, "but come in and have some supper before we start." Jim chained up his dogs to some quava bushes and followed the ranchman into the house. While Jim ate, Larsen regaled him with stories of the big cat's daring feats.

"Why this here cat," stated the ranchman excitedly, "beats all you ever see. He comes right up to the hog pen in the big broad open daytime and picks out the exact little pig he wants. And he's shore a big 'un! In case he don't take a tree but decides to stop an' fight, which I reckon he's more'n apt to do, he'll whip *all* your dogs."

Jim smiled as he thought about staunch old Grey outside and replied quietly, "He may *kill* 'em but he'll never whip *one* of 'em."

Larsen had gone to the door and after peering up at the sky a moment called over his shoulder, "Well, let's be hittin' the woods. The moon's up and there's a heavy dew. The dogs ought to be able to hold a track fine a night like this."

"All right, show me your wild cat," grunted Jim, picking up his precious .30–.30, and following the ranchman down the steps. The dogs whimpered eagerly in the cool night air but a word from Jim quieted them down and silently the little party struck off through the piney woods toward the swamp.

The pups immediately began to range back and forth through the woods but old Grey trotted quietly behind Jim and did not even raise his head when Vic, a big spotted hound, began to show signs of striking.

"Let's stop a minute and see what the pup's after," suggested Larsen but Jim's only answer was to reply shortly, "Don't worry about the pup. Watch the old dog. When *he* gets interested, then it's time for *us* to pay attention. He knows that's a rabbit and he also knows that this ain't wildcat country. Watch him when we hit the bayhead!" Then raising his voice, "You! Vic! Come off of that rabbit!"

Vic ceased all efforts to unravel the rabbit track at once, and trotted sheepishly off through the trees in search of larger game.

After a short walk, Larsen turned down a little lane to the right and stopped before a large gate.

"Now," said he, "we're right near this cat's favorite hangout. The hog pens are up to our right and directly ahead is an old orange grove. If the dogs start him in here, he may take right back across the pine hills, or he's liable to head right down into the swamp. At any rate, he won't waste any time stayin' around these parts, so be ready to travel and travel fast."

While the ranchman had been speaking, old Grey had raised his head and sniffed the gentle night breeze. A faint pungent scent came to his nostrils and noiselessly he slipped through the gate and melted in-

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to the shadows. Larsen did not notice this and upon looking down asked, "Where's the old timer?"

There was a funny little smile on Jim's face as he answered, "Just sit tight, pardner, and you'll soon find out. That dog's got his mind on wild cats to-night and something tells me that we're going to be moving *some* in about five minutes."

Even as he spoke there was a long clear howl from the other end of the field as old Grey hit the fresh track of the big cat. Vic was over the gate like a flash and the other pups squirmed through and under as best they could, fairly shouting with eagerness. In another minute the whole pack had taken off through the piney woods in full cry and the chase was on. With an earsplitting whoop, Jim vaulted the gate, and tore after the hounds, shouting for Larsen to follow.

But there was no need for this for Dan was at his heels and in between breaths managed to gasp, "Great snakes! Ain't they goin' yonder! Don't let 'em get out of hearin' or we'll lose 'em shore." But the cat had circled and the two men stopped to listen.

"Just listen to that Vic dog," panted Larsen in ecstasy. "Ain't that the finest music you ever heard?" The big spotted pup was running as only a hunt-crazy pup can run, baying every jump, his deep voice carrying clearly above the shrill yelping of the rest and blending beautifully with old Grey's bell-like "tenor." Dude, a long legged red-bone hound of old Kentucky stock, was running neck and neck with Vic for the lead and Larsen turned to Jim with a beaming face.

"That's worth fifty dollars a minute," he exclaimed, "and one thing is certain—that cat shore can't stay where he is much longer."

The cat evidently realized this too, for after another vain attempt to shake off his pursuers by circling, he straightened out for another long run, and soon the baying of the hounds had died away in the distance, the hunters vainly trying to keep within hearing and finally stopping to rest from sheer exhaustion.

"Reckon he'll go right on to Canada at the rate he's goin' now," grinned Larsen from his seat on a pine stump. "He shore is the most inconsiderate varmint I ever did see. Why, this is more runnin' than I've done since old man Miller's bull broke loose two years back."

Jim Heath smiled. He was used to rough country and fast chases but this was admittedly an unusual wild cat and he said so.

"I'm glad you told me it's a bob-cat or I'd swear it was a kangaroo, myself," he laughed. "What sort of country has he gone to?"

"It's pretty open country," replied Larsen, "pine hills with here and there a small lake or pond, and I can't figure what that or'nery cuss figures on doin'. If he was a common or'nery, everyday catamount, he'd use some sense and hunt an oak scrub or briar thicket. He must think he's a doggone *deer* to try to outrun *them* dogs in the open woods."

Jim was standing, listening intently. From the northeast came a faint baying.

"Coming back!" said Jim, picking up his rifle. "Let's cut him off before he reaches that bayhead you were talking about."

"You're mighty right," replied Larsen, as the two hunters hurried toward the dogs. "If he gets back to that thick scrub and sawgrass, he's liable to get plumb away."

But they were too late. The chase swept by a good hundred yards ahead of them. Big Vic was still in the lead with the red pup a close second—old Grey having fallen quite a little to the rear.

"Pace is beginning to tell on the old

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man," muttered Jim. "But he'll catch up now that the cat is circling, unless——"

But Jim's fears were justified. The big cat did not stop to circle long in the scrub and in another moment the muffled baying showed that he had taken to the sawgrass —a vast marsh of tall, saw-edged grass, growing in water from two to four feet deep. Larsen set the lantern down in disgust.

"Ain't that tough?" he growled, "after such a pretty run!"

"How far is it across the sawgrass to the point?" asked Jim shortly.

"About a mile," replied the ranchman, "and it's *seven* miles around to dry land." Jim's face brightened.

"He'll never make it! That Vic puppy is a regular fish in the water and he'll either catch him or make him come back to shore."

Out in the sawgrass the big pup was fairly roaring as the steaming hot scent told him that the chase was nearly over.

"Listen to that!" exclaimed Jim triumphantly. "Old Vic's reachin' for him right now and if he don't come back to land pretty quick, he'll shore get caught." And sure enough, the big cat, exhausted by his long run over the pine hills, was coming back to shore. Rover and Dolly, the two younger pups, had not dared the sawgrass, and the cat, closely pressed by the three dogs in the marsh did not reckon on running into two more on land and Jim chuckled with glee as the shrill yapping of the puppies showed that they had glimpsed their quarry.

"Go on, boys!" whooped Jim and then turning to Larsen remarked proudly. "Ain't that a *runnin'* pair of pups? And they ain't a year old yet." Even as he spoke, Dolly's excited yelps proclaimed that the big cat had turned to fight, and Jim whooped again.

"Talk to him, Dolly gal! We're comin'."

They had not as yet reached shore but the rest of the pack had surrounded the cat and at Jim's whoop, Vic rushed in. He was met by a vicious slash of a formidably armed forepaw that sent him yelping back to a respectful distance where he contented himself with long-drawn-out howls of victory.

But the cat had no intention of waiting to be shot and as soon as he had gotten his wind, slipped past the pups and another run was on. Five times the big lynx came to bay and five times old Grey failed to catch up in time. As the pups brought their quarry to bay for the last time, Jim whispered to Larsen, "Keep real still. That varmint has just about run himself to death, and if we're real quiet, he'll rest long enough to let the old man catch up, and then——"

Old Grey was coming. He was worn out by the long run and his old scarred face was bleeding from the sawgrass but he knew that Jim was waiting for him and he struggled on. His voice had become hoarse and feeble but Jim heard him coming and as the old dog passed, bent low and whispered, "Go get him, boy!" Memories flashed before the old hound of days when his teeth were long and white and powerful and when "Go get him, boy!" would have sent him against a lion. So he wrinkled his lips back over his old yellow fangs and without a moment's hesitation rushed through the circle of pups and closed with his foe. It was all over in a moment. The pups, needing only a leader, rushed to his assistance and after a short struggle, the big, snarling, spitting lynx straightened out with a final screech and gave up the fight. Larsen lifted him up by the hind legs and whistled softly.

"Some cat," he said. "Must measure over four feet."

But Jim did not answer. He was kneeling among the palmettos looking at a long,

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deep cut in old Grey's neck. The old hound licked his master's hand and attempted to appear in the best of spirits. Jim grinned.

"Lucky old rascal," he muttered. "You like to got your throat cut, too. But you can't fool me. You ain't no two-year-old and all the tail-waggin' in the world won't make you one. Another night like this would kill you shore's my name's Heath."

A big bobcat hide hangs in the ranch house at Loch Meade and the turkeys roost unmolested in the old live-oak at the edge of the bayhead. Old Grey is still the same dauntless fighter and tireless runner as of old—but his fights are all dream fights and his hunts are taken as he sleeps in the warm sun and dreams of cypress and sawgrass and the far-reaching stretches of big piney-woods.

An Island of Dogs

By N. Tourneur

THEY that go upon the sea in ships know there are many strange oddities among the islands of the deep. But who shall say there is one to equal the island of dogs? It is like no other in its inhabitants. This little-known island is dogdom—real dogdom.

There grow the coconut and other palms. There the sands are white and soft, and protected by outer reefs from the breakers. There turtles abound, and fish and sea-fowl are in great plenty. Pleasing green stretches break up the thickness of tall brushwood ashore, and springs of sweet water are there. All in all, the island is very fertile and fit for man's habitation. But—dogs occupy it—innumerable dogs.

To-day, few ships pass by Juan da Nova in the Indian Ocean, latitude south 17° 3′ 30″, longitude east 43° 24′ 47″. In the days of sailing ships only, many an East Indiaman and others touched at Juan da Nova to fill her water casks, and get fruit and turtles. Sometimes a dog was left on shore—lost in the bush or, again, purposely left behind to be got rid of. The spaniel, the terrier, Newfoundland, and hound, thus abandoned to its fate made use of its circumstances, and found plenty of food in the young turtles and sea-birds, and the turtle eggs. As time passed the dogs of Juan da Nova appear to have got the instinct of spotting where the turtle buries her eggs in the sand, and of digging them up, with extraordinary cleverness, and proceeding to eat them. They catch the sea-birds with as much crafty smartness as foxes catch hens and game fowls, and quarrel much over their booty.

The dogs of Juan da Nova are to-day all sorts of mongrels, every one of them, but all have lost one of the most distinctive features of their race. They have forgotten how to bark. They are dumb dogs, a deep growl being the greatest sound any can make. Most of them droop their tails like the wolf, but others, again, carry the tail curved over their backs. They are of all colors except pure white and brindled.

Another singular feature with these dogs is that they drink salt water freely without having any ill effects. Some that have been caught have had no liking for the company of tame dogs, and did not find a bark possible; and their wild looks and habits they have kept until they died, pining away for the free open life they had on the island, which is some twenty-one miles long and from half to three-quarters broad.

A real kingdom of dogs!

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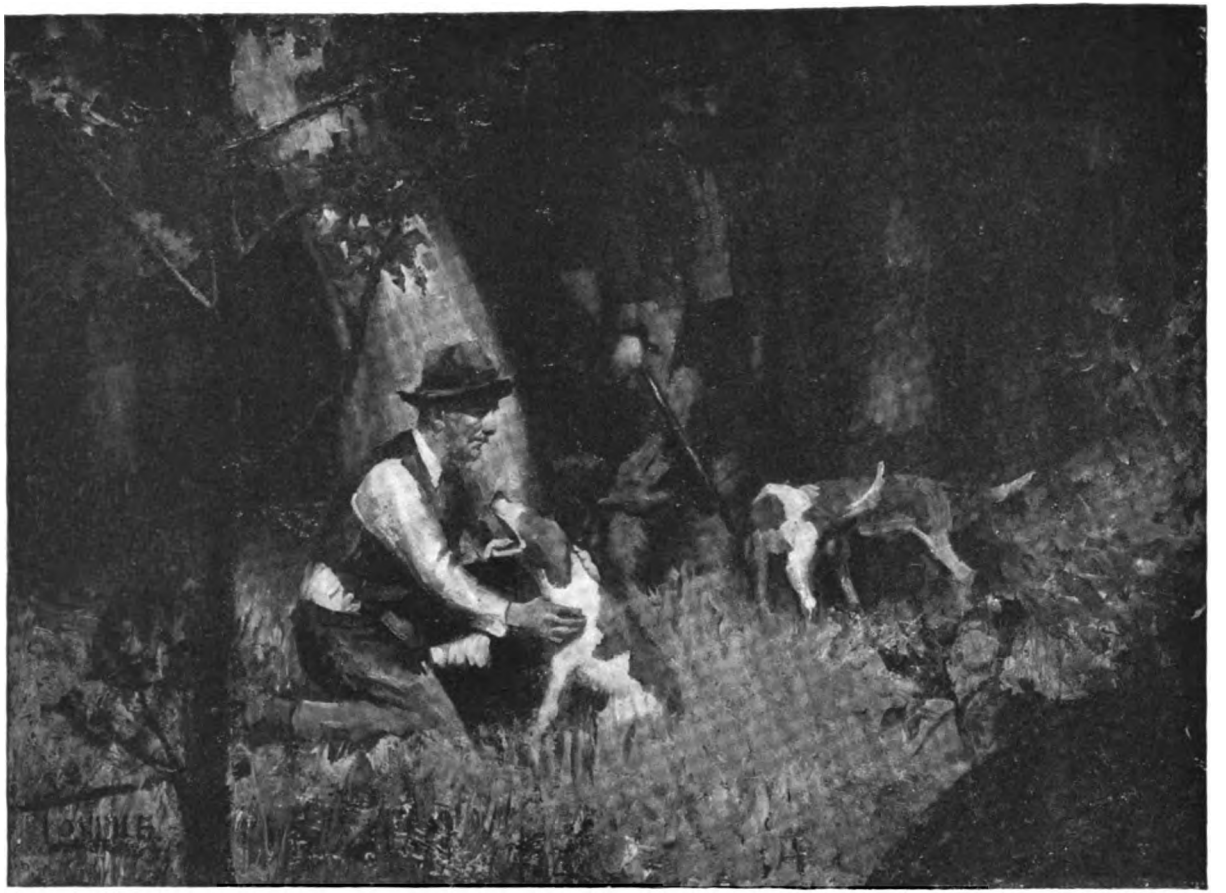

"You ain't no two-year-old, and all the tail-waggin' in the world won't make you one"

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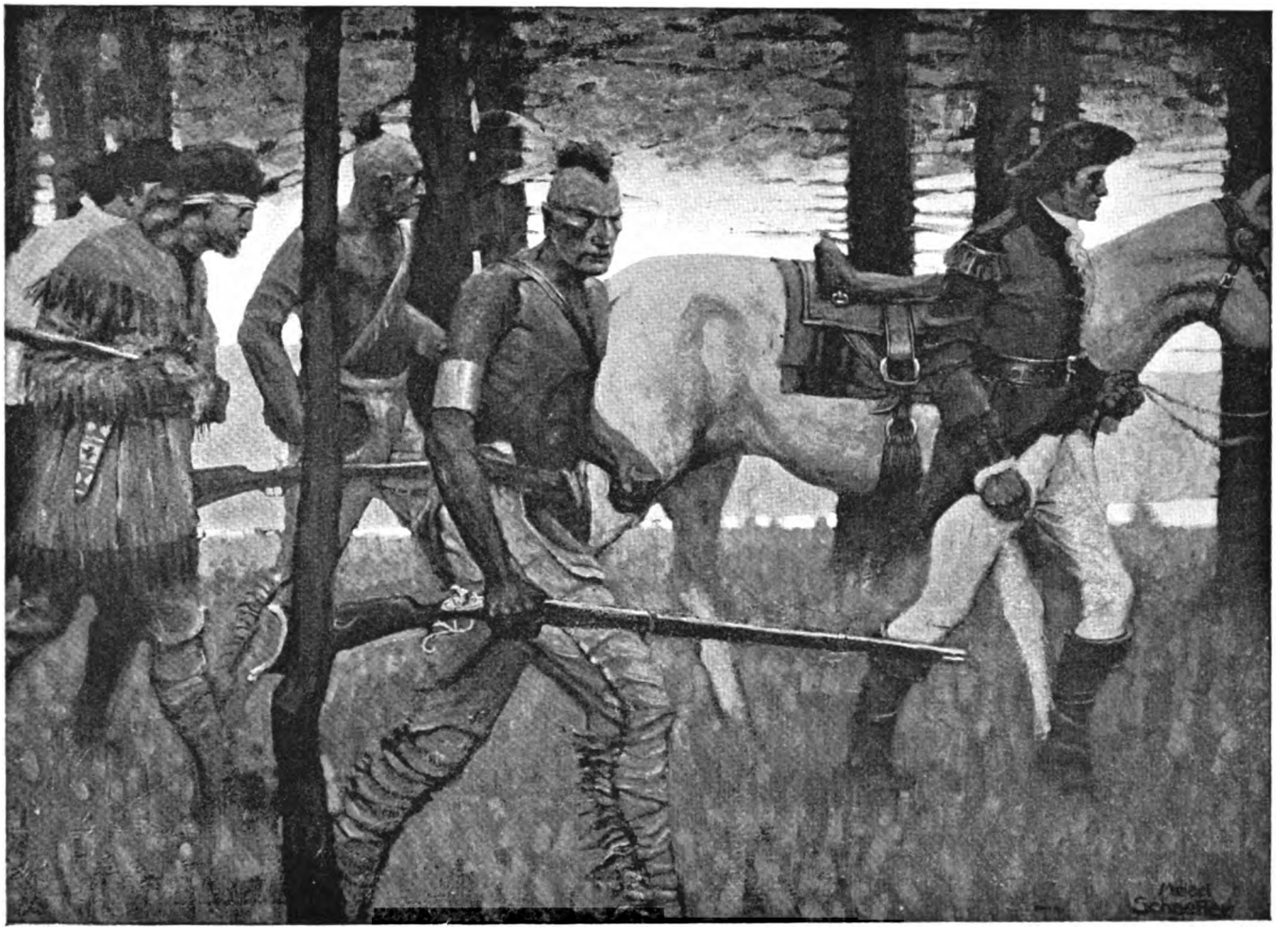

There filed out of a path a band of men leading their horses

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Pierre of the Train-Band

By F. S. Palmer

Illustrated by M. Schaeffer

THE farmers of Northern New York in the summer of 1750 were busy with warlike preparation. French troops were reported making ready for an assault from Canada along Lake Champlain to Albany; all was excitement and unrest on the shores of the lake.

One warm evening in July a group of young farmers were drilling in a field under the supervision of the train-band captain. It was tiring work; and now the band of a dozen young fellows were resting and chatting.

"Well, Pierre," said one of them; "I guess you'll be a good drummer for us. Your years in Canada didn't make much of a Britisher of you, after all, did they?"

Pierre Lefrenier, a lad of fifteen, looked up pleased; two or three of the young men slapped him on the back, good-naturedly. "Pierre's a good American!" they cried. The captain who had come from the village to train these men looked on grimly. "I'd like him better if he hadn't lived on the wrong side of the border so long," he whispered to the man nearest him. "I tell you he'll never march with the company if I can help it!"

Pierre did not hear; yet he had noticed the captain's disapproval. It was barely six months ago, after the death of his father, that Pierre Lefrenier and his widowed mother had returned to the farm in Northern New York owned by his grandmother. Some of the neighbors could not forget that the boy's father was a French Canadian, and that he had lived ten years across the border among those who were now their enemies.

It was growing dusk, and the captain was about to give orders for their disbanding, when suddenly there filed out of a path leading through the forest northward to the St. Lawrence River, a band of forty or fifty men leading their horses; each carried a rifle. Evidently their scouts had warned them of the presence of the drill-band, and their guns covered the dozen farmers.

"Throw up your hands, quick," shouted the man who seemed their leader. "Don't move!"

Pierre and his companions held up their hands, and did not speak. The leader of the newcomers wore the uniform of a French officer, the men with him looked like Canadian hunters and trappers; with them were a half-dozen Indians.

"Curse you fellows for being here!" exclaimed the officer. "I'll have to leave men to guard you. Antoine, I leave you in charge with five men. Keep these fellows under guard—shoot the first one making trouble." He turned to the prisoners. "You hear what I said; it will be obeyed." Then to his men; "Come on; there's no time to waste!"

They followed after him in the gathering dusk, leading their horses; through the rough ground a half mile further on, lay

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a road where they could ride again. This road circled around to the village which if there had been a direct path would not have been more than three miles away. To Pierre it all seemed like a nightmare.

Antoine, the swarthy trapper left in charge, ordered two of his men to search the farmers and then tie their hands and feet. Quickly the work was done, and then the Canadians sat together talking in French, leaving two to stand guard over the prisoners. Pierre was left lying on the ground near where they were now talking; this together with his knowledge of French enabled him to catch a little of what Antoine and his companions were saying.

"It will take an hour or more for our men to encircle the village," said Antoine; "and that must be done before the attack is made. We can't leave here till we hear the first shot."

"And we must lose it all! Well, they ought to give us a better chance when——." Here he dropped his voice and the boy could catch no more.

While Pierre's ears were busy his fingers had not been idle. With the patience and skill born of his training in the northern woods he worked at the knots that bound him, and at last succeeded in untying them. The edge of the forest was not more than fifteen feet from where he lay. It required only two springs to carry him to the shadows of the underbrush.

His leap was quick, but the sentinels' sharp eyes saw the boy's first movement. As he crashed into the bushes the knife of one guard—which he wore in his belt and could throw as skillfully as an Indian throws his tomahawk—glanced through the air cutting a twig close to the boy's cheek. Pierre made two other long leaps, then crouched down and, feeling along the ground, found a heavy stick; this he flung crashing into the bushes at one side.

Both the sentinels sprang after him. But it was dark under the evergreens, and as they, misled by the sound of the stick he had thrown, plunged a few yards to one side, the boy rose and moved quietly on in the darkness—his moccasins making as little noise as do the furry feet of a panther creeping to a deer. Even a panther sometimes stirs a twig that rustles a dead leaf; and this happened now. The ears of the trappers caught the slight sound, and fearing their prisoner was escaping, both fired. Thanks to the darkness the bullets went astray, but one came so close to the boy's head that the concussion almost stunned him.

Pierre smiled grimly to himself; these fellows should learn he was no farmer's boy, but one trained in the woodsmen's craft! He leaped forward running like a deer. The Canadians sprang after him not twenty yards behind. The forest creatures that fill the woods at night—flying squirrels and sable and foxes—scrambled out of the way, and crouched down, wondering, as they went crashing by.

They were not unequally matched; all were trained woodsmen, and while the scouts had the advantage in strength, Pierre was the more agile.

They kept on for what seemed a long time, but which was probably not more than a quarter of an hour. By that time Pierre felt his strength fast going. He was breathing painfully, and had to slacken his pace. His feet began to sink into the moss making his running still more difficult. He found he was now in the midst of a small tamarack swamp, and got a glimpse of a pond to one side. Making a last effort, he clambered upon some logs, ran to the pond, waded in where the water was three or four feet deep, and lay down, just holding his mouth above the surface. A moment later the Canadians

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came crashing along. He heard their low comments.

"Where did he go? Hello, here's water! He may be here—or climbed a tree! Perhaps he went on—running over this moss makes no sound!"

The two trappers looked about hurriedly; once they lit a dead tamarack bough and held it over the pond; but the boy's chin and mouth among the floating logs was so small an object they did not notice it. While looking about they heard a noise in the woods beyond the pool, and hurrying around the water ran off to follow it.

Pierre listened to their retreating footsteps, then crawled out of his unpleasant hiding-place, and hurried away, going in what he thought was the direction of the village. He had caught his breath, and now a run of ten minutes brought him to the edge of the woods; soon he came to the road that led to the village two or more miles away. Now he could not run faster than a slow trot, and was panting painfully. However, he plodded on.

He was still a mile from the village, hurrying along in the starlit night, when suddenly a voice from the side of the road broke the stillness.

"Halt! halt! Who are you!" A man on horseback moved from the bushes into the center of the road and confronted him. Pierre saw it was one of the Canadian trappers, and did not stop to speak; he plunged off the road, diving into the thick brushes which lined it. At the same moment that Pierre leaped, the trapper's rifle flashed, and his horse dashed into the bushes after the boy.

Where Pierre had plunged from the road there lay a deep ditch strewn with logs and roots; as the horse attempted to follow him, it too leaped into this ditch, pitched forward and threw the rider over its head. Pierre did not stop to see what had become of the trapper; as the horse staggered to its feet, the boy caught the bridle, leaped to the saddle, and reaching the road galloped off toward the village. All was quiet behind him.

He rode freely and felt like shouting with joy. He became conscious now of a sharp pain in his right arm; glancing down he found his wrist covered with blood.

He felt himself grow faint for a moment, but making an effort he threw the faintness off and dashed on to the village. Now he was racing up the central street; his head swam but he could make out a group of people in the foot path. He pulled in the horse.

"Raiders from Canada! They're almost here! Quick! Quick!" and he fainted and fell from the saddle. There was shouting and running, and then the beating of a drum and the clang of the bell in the village church. Pierre, stretched on his back in a village house, attended by two or three women, was undisturbed by all this noise and excitement.

One evening in October Pierre, now well of his wound, was asked to come to the village square. Here he found the train-band drawn up in line, and recognized among its members the men who had drilled with him on the evening of the attempted raid from Canada. The captain who had charge of the recruits on that summer evening now stepped forward and met him.

"My boy," he said gravely; "I want to make amends for all my suspicion. Will you take the place of lieutenant in our train-band—and forgive those who did not trust you?"

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Lion—A Dog Story

By L. P. Holmes

LION was a Scotch collie, whom (I use the personal pronoun purposely, as he was as near human as any animal could be, and had more sense in some ways than some men I have known) I bought when only a few weeks old, and trained entirely myself. He was black and white with tan points.

In his puppyhood, like many other puppies, he learned that eggs tasted good, and used to help himself from the nests; but I gave him an egg partly filled with red pepper; and after that a hot soft-boiled egg which I crushed in his mouth, and he was cured of the habit. In after years, when I would be telling some friend of his good points, he would stand by, listening and wagging his tail, but if I mentioned the fact of his having sucked eggs, down went his ears and tail, and he would slink away as if ashamed.

I spent a good deal of time when he was old enough to begin to drive cattle, teaching him to drive them as I wanted them driven, and as he had a little streak of stubbornness in him, I have often followed him five miles before breakfast to bring him back to do as I wanted him to do. I never whipped him for these breaks, a tweak of the ear was all he needed to correct him. A collie should never be whipped. I whipped one once for stealing a ham out of the pantry, and it did no good, and he never forgave me.

Lion learned after a time to drive just as I wanted, and if he was a mile away, so long as he could see my signals, would take the cows in any direction I signaled for, or leave them and return to me. I was breaking up my farm at that time, with a yoke of oxen, and would turn them loose at noon, with the yoke on, to feed on the prairie. I had a large number of young trees growing around the house, with no fence to protect them, so, as I did not want to leave the dinner-table to look after the oxen, I would say: "Lion, go and see where the cattle are;" he would go out and look for them. If they were near the trees he would drive them a little farther off. If they were not near enough to do any damage he would not molest them. He learned to know every animal by name, would pick out any one I sent him for and bring it to me, would take them out to the herder alone, after the milking was done in the morning, and go and bring them home at night, without my telling him.

When he was about two years old, I took him with me to a village where I was teaching school. The family with whom I was staying had a large herd of cattle, which had been accustomed to roaming over the ground on which the village had been lately platted, and they trespassed on the lot of an old gentleman and trampled his flower-beds, in spite of all the efforts of the herder to keep them in the road as they passed his place. He had plowed a furrow along his side of the road, and asked the herder to keep the cattle from crossing it. Learning of the trouble they had in conforming to his wishes, I took Lion out to the end of the furrow one morning, and said to him: "Don't let them

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cross that furrow." One and another tried it as they went along, but Lion was after them so quickly, and nipped their heels so sharply, that they gave it up in short order, and it was only necessary for the herder to call Lion to turn them back at any time afterwards.

At that same school I was playing baseball with the boys one day. One of the boys was on first base when I took the bat. When I struck, and started for first base, this boy, of course, started for second. Lion thought I wanted to catch him, so he took him by the leg and threw him down. I scolded the dog, but it had been so comically done that we all laughed, so Lion evidently thought the scolding was not seriously meant, and when we started for the next bases he took a piece out of the boy's pants leg by way of emphasis.

He would always take the part of my wife and daughter when we indulged in a game of play, and if I caught hold of either of them he would seize me in the small of my back, compelling me to release them. He would never allow them to be hurt by any one.

He was six months old when my daughter was born; so, by the time she was able to run alone, he was a mature dog. We missed her one day and her mother, in looking for her, saw Lion's tail waving above the tall grass near the creek, and running down there, found him walking along the edge of a steep bank, above a pond eight feet deep, pushing the little girl back from the edge. He undoubtedly saved her life on that occasion.

He was excellent help to me in my chicken-raising. No skunk ever escaped from him. He would shake the life out of them, and then chew them from the tip of the nose to the root of the tail and back, then lay them down and look them over, and if he thought there was a sign of motion indicating that life remained in them, would repeat the operation until he was sure they were dead.

He surprised me one day by showing me that he could handle a good-sized raccoon. I had been away to spend Thanksgiving at a sister's twenty-nine miles distant, and had remained all night. That night my chicken yard was visited by three coons, and I found a rooster and eight hens gone when I returned. Searching around, I found the bodies of some of the hens, and, as the next night was rather gloomy, I concluded that the coons would be back for more chicken supper, so I carefully closed all but one coop, which was not far from my bedroom window, and went to sleep with one eye and both ears open.

About eleven o'clock I heard a hen squawk, and sprang to the window and called Lion. He did not answer, and I hurried a few clothes on, seized my gun and a lantern and ran out, to find that Lion had been as alert as I was, and a little quicker in getting there. I found him looking up at a small cotton-wood tree, the stem of which was hardly as large as my wrist, and which I did not think capable of supporting a coon. I said: "Lion, where's the coon?" He whined and looked again up into the tree. I said: "You are fooled; no coon could be up that tree. Go and look around." He started off and ran 'round the grove hunting for tracks, but came back to the same tree and whined, as much as to say: "He's there all right."

With that I turned the bull's-eye of my lantern up into the tree and caught the glimmer of the coon's eyes. Setting my lantern on the ground, trying at the same time to keep my eye fixed on the spot where I had seen the eyes, I fired and missed. My gun being an old-fashioned muzzle loader, I called for my wife to bring me some more ammunition, loaded again, and, getting her to hold the lantern, put my shot home,

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breaking a foreleg, and Mr. Coon came tumbling down. Lion was afraid of fire-arms, and each time that I shot he would run behind me for some distance. He came rushing when he heard the coon fall, and springing over the chicken house, which was a hoop-shaped affair, set on the ground, was just in time to seize the coon as he was half way through the hedge, beating a retreat, for his wounded leg did not seem to prevent his traveling.

Lion caught both hind legs in his mouth, surged back and jerked him clear of the hedge, then with a dexterous throw put him on his back, and before he had recovered from the throw, seized his under jaw, and did not release his hold until he had crushed the jaw so that the coon had no power to bite him. I then gave Mr. Coon several blows with a club and finished him. It takes a pretty good dog to handle a coon, and I was not aware that Lion had any knowledge of the matter, but he had been hunting a little with an excellent coon-dog belonging to a neighbor, and had evidently learned her tactics.

Rats were troubling me in my henhouses at about that time and I had traps set in several of the houses. I had eight hundred hens, so had about twenty houses for them. I had at that time a young dog, who never failed to follow me closely wherever I went. He had never had any experience with rats. I found a live rat in one of the traps one morning, and pointing it out to the youngster, said: "There's a rat in the trap, Carlo, take it out." He advanced cautiously to reconnoiter the animal, when the rat reared himself on his hind legs, and as soon as Carlo came within reach, seized him by the nose, with the result that Carlo made a vigorous outcry, and after some effort pulled himself loose and ran out of the door.

Lion had heard the outcry, and came hurrying to see what was up, running in at the door as Carlo ran out. He looked up at me to see what was the matter, and I said: "There's a rat in the trap, Lion, take him out." Lion looked at the rat, and then at Carlo, and his look seemed to say: "Was that what you were making such a row about?" Then he turned toward the rat, and giving another look at Carlo, as if to invite him to watch him, he stepped carefully to the trap. The rat raised himself again to repeat his performance, but before he could make another move, Lion snatched him from the trap, crushing him in his jaws, and laid him dead before Carlo, as if to say: "There, that's the way to do that job," and turned and walked to the house.

He had a great aversion to rattlesnakes, and having been bitten by them three times, learned to bark around them until they uncoiled and started to run away, when he would seize and shake them to death. It was always best to be at a little distance from him when he attacked a rattlesnake or a skunk, as there was sure to be something in the air at those times.

Poor old Lion! He lived to be sixteen years old, and became so deaf and feeble that it was a mercy to put him into his last sleep. But we felt that a member of the family was gone when he was no longer with us.

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WILD ANIMALS AT HOME

"The Mountain Goat"

Dr. William T. Hornaday, Director, New York Zoological Society, describes this wonder of the mountains as brave and philosophic.

"The Mountain Beaver"

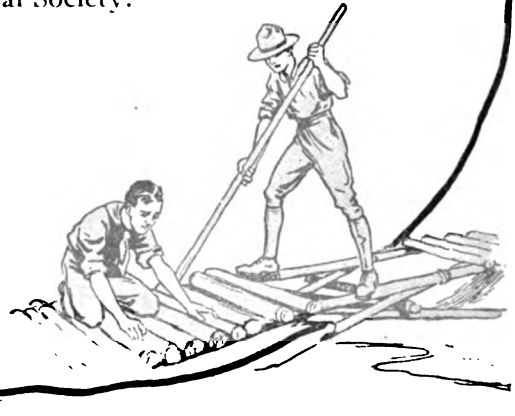
Charles L. ("Grizzly") Smith tells the life story of this little known animal.

"The Porcupig Baby"

He made a charming pet and he could sing, so Cornelia J. Stanwood tells us.

"The Troubles of Father Emu"

A family in which papa has all the duties of raising the family, entertainingly described by Lee S. Crandall, Curator of Birds, New York Zoological Society.



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A big old billy goat at home in the Elk Mountains, British Columbia. This photograph was taken by Charles L. (Grizzly) Smith

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The Mountain Goat at Home

By Dr. William T. Hornaday

Director of the New York Zoological Park

WHEN we speak of the "home" of any wild animal species, we mean the place where it is most thoroughly at home, where it is found in abundance, where it attains its maximum size and horn development, and where it lives its normal life. Just like men, wild animals have their centers of population. On the map, the White Mountain Goat spreads from northwestern Montana and northeastern Washington to the head of Cook Inlet, Alaska, and eastward to the Continental Divide.

I am one of the very few men whom fortune has permitted to visit the great headquarters of Oreamnos, and see nearly 200 Billies, Nannies and kids in less than a month. In September, 1905, I went with my good friend John M. Phillips, of Pittsburgh, to the Elk River Mountains of southeastern British Columbia, where goats ran wild all over the place.

Charles L. Smith—now famous as "Grizzly" Smith of the Boy Scout organization of Pittsburgh—then was a regular guide for sportsmen, and his ranch was on the Elk River near Michel. If this reads like a story of "Grizzly," I am sure that the scouts of the Steel City will not file any objections.

Really, now, it is a great thing to go to the headquarters of any important wild animal species, and find hundreds of them in their most picturesque haunts. Scenically that country between the Elk and the Bull Rivers is a dream; and while thrillingly bold and picturesque, it is not an unreasonable or impossible region to work in and get through.

As we left the Elk River and headed our toiling pack train up Goat Creek to climb to the summits, "Grizzly" Smith said with reckless confidence:

"Now, to-morrow night we will camp right among the goats!"

In the evening of that to-morrow we camped on a narrow goat highway running between a low peak and a high one; and while the last tent pegs were being driven, and the supper was going on the fire, three live Rocky Mountain goats wildly stampeded through our camp. They ran within six feet of the camp fire, and we admiringly let them go.

During the twenty-four days immediately following that one we saw 237 goats. Our hunting licenses permitted us to take ten specimens, but we took only six. We were much more interested in studying those goats at home than in killing them, but I doubt whether any sportsmen ever had goat opportunities greater than ours.

To begin with, those goats had not been harassed and shot up by sportsmen, or Indians, and they could look upon men without becoming panic-stricken. By carefully avoiding all hullabaloo, and doing no unnecessary shooting, we alarmed those herds very little. From their dizzy heights, those old bearded Billies looked down upon us as if we were so many curious insects. For example, the big

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Billy that Mr. Phillips photographed so handsomely hung out on his cliff above our camp for two days, watching the daily woodchopping and cooking of our valiant cook, literally hour by hour.

The stage setting of those mountain goat movies, with real goats and men, was truly ideal. We were on the summit of the Elk River Mountains, at an elevation of about 7000 feet, negotiating valleys, peaks and slopes in bewildering succession. Our pack-train could travel only in the V-shaped valleys that ran between the mountain ridges, but as hunters we climbed everywhere. Fortunately, there were enough reasonable slopes where a fellow could go hunting without risking his neck at every step. All the other members of the party were tough and well-seasoned mountaineers, and the New York tenderfoot takes to himself considerable credit that he worried through his share of the activities without any broken bones or other compromising accidents.

It was in September. The weather was glorious, the air was clear and sparkling, the autumn vegetation was at its finest stage and the wild creatures were certainly making the most of it. The goats and mountain sheep were doing their best to mow the cloudland meadows. The pika—little haymaker of the slide-rock—was busily cutting and *drying in the sun* his winter's store of alpine plants, and the grizzly bears were gathering huckleberries for conversion into good bear-oil.

On gray days, after rainy weather, the colors of the mountains were most intense and most beautiful. Each element, of cliff, slide-rock, evergreen forest, meadow and shola contributed its own special color to that wonderful mountain cyclorama of grays, greens, browns and purples.

No wonder the goats, sheep, elk, deer, bear, martens and wolverines all love that summit country.

Toil to the top of cloud-kissed peak,
And see vast seas of mountains roll.
Then, feel great things thou canst not speak,
Because of smallness of the soul.

When not harried and shot to pieces in his habitat, white mountain goats prefer to go in herds of from six to twenty individuals; but solitary specimens or wandering pairs are common. In altitude they are at home anywhere from tidewater up to 9000 feet, both in thin timber, at timberline, and above the limit of trees where the rocks are bare. Their ideal and best-loved haunts are at timberline, and from a thousand feet below to a thousand feet above. In that memorable September of 1905, all save a few of the goats that we saw were above timberline. There, goats are visible at a distance of half a mile, and under some conditions much more than that. Usually, however, we came upon our goats at rather close range. Often we climbed up to them; but in some cases we met them on a level and parted on the square.

In that clean limestone country, containing no red or black earth, the goats were pure white—almost "as white as snow." The first two old Billies that we collected seemed to me brilliantly white, as white and fluffy in pelage as cotton. This is the first thing that strongly impresses one who sees wild goats for the first time. In countries where there is much red earth or black earth, it is said that individuals sometimes are pale red, or dull black, as the case may be. Mr. Phillips tells of a black goat that he saw, and of a blue one that for a few hours greatly excited one of his hunting companions.

One of the first new facts that we learned from the mountain goat at home concerned his temperament. Instead of being a nervous or wildly hysterical creature like

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a deer, which when cornered will instantly leap over a precipice to certain death, the goat believes in the survival of the fittest. Life on the summits amid narrow ledges, abysmal heights, snow, ice and avalanches has taught him the value of calm judgment and sober second thought. When he is brought to bay on a ledge, by men or dogs, instead of leaping off to his death he stands fast, faces his nearest enemy with a pair of dangerous horns, as sharp as skewers, and says:

"Well, it's your move! What are you going to do next?"

This calm attitude betokens a philosophic mind and steady courage. But at the crisis the goat can fight, and fight fiercely, as many foes have found to their cost. When attacking, the goat lowers his head until his chin almost touches the ground, plunges forward and at the right instant gives a fierce side swipe upward with his horns, to puncture the vitals of his enemy where they are unprotected. And man or beast may well beware that thrust.

Mr. A. B. Fenwick related to me the particulars of a battle of two Indians, fifteen dogs and two horses with a Billy goat that had wandered out upon Joseph's Prairie, where Cranbrook, B. C., now stands. The Indians thought that with their horses and dogs (but no guns) they could capture the goat alive. The goat thought otherwise. "A little later a squaw saw that they were having a bad mixup, and ran out to the Indians with a rifle. One of them shot the goat. All but two of the dogs were killed on the spot, or died very shortly. It was with the greatest difficulty that the Indians saved their horses from getting punctured by those terrible little horns."

It is on record that a full-grown grizzly bear was killed by a full-grown Billy goat while the bear was killing him. The dead bodies of the two were found only a few yards apart.

So you see, although the goat is deliberate in thought and in action, and wise in self-preservation, when the time comes to fight he is right on the job.

To me the most wonderful thing about the mountain goat is his mind. He is so calm and self-confident, so level-headed and sure-footed, that often and often he marches and climbs where no other four-footed animal of North America dares to follow him. I never got over my original amazement and admiration of his summit work.

Early in our studies of white goats in that goat paradise we were treated to an exhibition of climbing that opened our eyes. As we were passing across a tiny goat pasture at the foot of a rock precipice, we surprised a party of four goats on the side of the wall, about 100 feet up. We halted, to see what they would do. The face of the rock wall was reasonably rough, but it could not have been more than ten degrees from being perpendicular.

Two goats stood safely upon the summit, looking down on their entrapped comrades. The unlucky four could have been shot as easily as picking grapes; but it is not all of goat-hunting to *kill* goats!

Finding that they were not being shot at, the four goats started to get away from us by climbing straight up the face of that precipice! For ten minutes we watched an amazing exhibition. Each goat chose an independent course, reached up with his front feet for a foothold, then by sheer muscular strength lifted his heavy body up the three or four feet to be gained. Often sidestepping was necessary to find a new foothold; but there were no slips, and never once a turning back.

They climbed in that way about 200 feet while we watched them, then reached easy going, and quickly disappeared over the summit. We hunters all agreed that no

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mountain sheep could make a climb like that; but of course we don't really *know*.

Several times we saw goats serenely promenade across the faces of perpendicular cliffs of bare rock so smooth that no sign of a ledge or path was visible to us, even with our glasses. In every such case it looks as if the animal were walking on the air. The feet are planted with great precision and firmness, and this imparts to the animal a stiff gait, and the general appearance of a mechanical toy in motion.

The mountain goat is equally at home on rock, ice, snow or meadow, and it lives in bands of two to twenty. Its big black hoofs have chisel edges for ice and a center of rubber cushion for slippery rock. In steep climbing the front of the hoof digs in like a garden trowel, and in going down steep places the rear dewdaws make wonderfully effective brakes. The heavy coat of fine and dense white wool is impervious to dry cold, but the wet and cold rains of New York winters quickly put mountain goats down and out. In the East they must be sheltered from all cold rains, or they contract pneumonia and die. Of dry cold they can endure any amount.

In the matter of food, we must say that the goat is herbivorous, and explain that it feeds on a great variety of mountain plants, according to season. On the summits they find very little real grass, but they find pulsatilla and other queer pasture plants that are literally "just as good." In the spring they feed on the wild onions that grow abundantly in their home pastures, which imparts to their flesh a strong onion flavor.

Goats are numerous in British Columbia, widely distributed, and in the huge new game sanctuaries of that province and Alberta that have been created to preserve the goats, sheep, elk and deer and bear, the species is sure to be preserved from extinction. The whole region in which "Grizzly" Smith and the two Norboes guided Mr. Phillips and his friends from 1904 to 1907 now is a preserve in which sheep, elk, moose and goats have increased enormously.

The greatest feat in goat hunting of which I know was that of Mr. John M. Phillips in photographing on the face of a precipice a fine, big Billy goat, several times over, at a distance of from five to eight feet! The results have been given to the world in our book "Camp-Fires on the Canadian Rockies." The goat had been living alone, high above our camp, for several days, and at last the day came that Mr. Phillips decided to take his picture.

Accordingly, John M., Mack Norboe and Dog Kaiser climbed up to the goat, and after some very hot work they cornered him on a narrow ledge, from which the only escape was suicide by jumping off. The goat stood fast, snorted, stamped, gritted his teeth, and dared the camera man to shoot.

Hanging on by one hand and one foot, the reckless camera man rested his camera on his free knee, worked it with his free hand, and in the course of half an hour got half a dozen surpassing pictures, at very close range. I fancy that never before or since that day was a crag-climbing animal thus cornered at eight feet distance and photographed large. What is more, Mr. Phillips never will do the like again. He is married now, and has Boy Scouts in his family to hold him back from all such hair-raising adventures as that was.

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A Fifer of Fields, Woods and Pastures

By Alvin M. Peterson

SOME one has said that the Bobwhite and Ruffed Grouse play the fife and drums in our feathered orchestras. At any rate, the Bobwhite has a loud, clear, whistling song that is one of the most pleasant of all natural sounds. Two of these birds seem to enjoy sitting on neighboring knolls and from these points of vantage calling to each other. "Bobwhite," comes a clear whistle from the first knoll. "Bobwhite" comes an equally clear one from the second knoll in answer to it. Occasionally, a bird is to be heard whistling "Bob-bobwhite," instead of the usual "Bob-white." Very often, too, some urchin may be heard answering one of the birds, apparently to the enjoyment of both.

The Bobwhite loves both the fields and woods. Generally he is to be found in rolling regions thickly dotted with patches of woodland. There he may stay in the fields and meadows or beneath the trees just as the humor seizes him.

The birds are great runners and great hiders, and, consequently, either run out of the way of passing intruders, or lie down, and, well hidden by their protective color, wait for them to pass by. They may often be seen running as fast as their legs will carry them over some exposed or open spot. They run in single file and to see fifteen or twenty of them, now running as fast as they can, now going slowly, headed for some piece of woodland, is a sight long to be remembered.

Bobwhites make snug and cozy nests in the meadows or woods in tufts of tall dry grasses or weeds. The nest is so well hidden that only by flushing a sitting bird can it be found. The task is extremely difficult because the bird does not leave the nest until the searcher is right beside. A female lays as many as eighteen, and sometimes more, pure white eggs, slightly pointed at one end. The pointed ends are laid downward and all fit nicely together.

The Bobwhite makes a good neighbor, destroying many harmful insects and eating the seeds of many weeds. Indeed, weed seeds make up over one-half of its food.

H. K. Job in his delightful book, "The Sport of Bird Study," tells us what to expect from the pretty white eggs. A nest was found by a farmer among some tall meadow grasses and of the eggs Mr. Job secured a picture. "I made another visit very soon with Ned," he continues, "and was just in the nick of time, for fourteen of the sixteen eggs had hatched, and the cunning little things which looked for all the world like little brown leghorn chickens, only about half their size, were all in the nest, just ready to leave, as they always do very shortly after hatching. The mother was brooding them, and she fluttered off, while the young scrambled out of the nest in an instant and hid in the grass.

The parents and young are to be found in flocks called coveys and roam the fields, woods, and pastures together. When an intruder comes near, they either try to run off and out of the way, or hide in the weeds and grasses. If the intruder stumbles along and gets too near them, off they go, one, two, or more at a time, with a dull whirring of wings. They keep on popping up and shooting off until all have gotten safely away. The little intermittent, explosive departures remind one of a bunch of fire-crackers set off on the Fourth of July.

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The Mountain Beaver at Home

By Charles L. (Grizzly) Smith

Illustrated by M. S. Johnson

THE mountain Beaver, or Sewelel, as it is known in Natural History, is not a true beaver, as its name would imply, but belongs to the family of our larger rodents, and in size would compare favorably with woodchucks. It has fairly fine fur and is dark gray in color on all parts of the body, the general build of the body being stout and rather pudgy like that of the woodchuck or muskrat, and resembles the former in most respects except in the absence of the tail. They live in burrows in the coast range of mountains along the Pacific from the San Bernardino mountains north into British Columbia. Their homes are the dark forests of these coastal ranges and the burrows are generally dug on the northern and eastern slopes of these mountains, at or near the heads of little draws and ravines where the water trickles over the bed rock from some spring above, just a foot or so underneath the shallow soil or loose rock. In these places the forests are generally dense in growth, the cedars, balsams, fir, and hemlock towering above from one to two hundred feet in height. The ground is densely matted with bracken, a species of winter fern which is evergreen. Upon this fern or bracken in winter the little mountain beaver depends chiefly for its food supply; however, in the summer season he feeds upon many different kinds of vegetation, including grass. This he cuts and gathers in little piles, leaving it to cure like hay, near the mouth of the tunnel, where, like the little Chief Hare or Pika he turns these little heaps of drying grass over until they are properly cured and then stores them away in a den under the ground.

They are the least known of all our American animals, I believe, on account of their very shy and retiring habits. Indeed, people, living for years where they are plentiful, have never seen one. They are strictly nocturnal in their habits, and are seldom or never seen above ground in daylight. But as the deep shadows of evening fall over the forest the little sewelel emerges from its tunnel and puts in the night industriously collecting small bits of vegetation and piling them up in little heaps near the door of its home. It is not a swift animal on foot and is poorly equipped for defense; in fact, it is almost as helpless as a rabbit in the matter of self-defense. This with its habit of wandering around through the weeds at night makes it an easy prey for the wild cat, panther, and fisher.

During the many years I wandered over that range of mountains as a prospector, hunter and guide I never saw but one of those little animals out of its burrow in daylight, although I have often stumbled across them in the night when I have been late in making camp or on my return from some hunting or prospecting expedition.

The time to which I refer was in the Rattlesnake Mountains in northwestern California, many years ago; I was spend-

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ing the summer in some of the rougher parts of this range in Trinity County and had started early from my camp in a deep and narrow valley and had climbed out high on the shoulder of a barren mountain, where I had been prospecting for mineral bearing quartz. There was no water to be had on the side of this mountain, and as I did not carry a canteen, the blistering sun and a parching thirst drove me early in the afternoon to seek the friendly shade of the deep forest in the valley below, where a cool, crystal stream meandered its way through the towering trees. I had reached the valley and after quenching my thirst at the stream had started down the valley in the direction of camp. On coming out to the edge of a little meadow of grass, which had been formed by some ancient family of beavers by damming the little stream, I stopped to look about, and while standing just in the shadows of the trees I heard the scream of a panther just across the little meadow. I stood perfectly still and soon the call came again sounding much nearer and I thought the animal was coming directly toward me, so I stood very quiet, gun in position for a shot as soon as it should appear in sight. I stood thus for several minutes and then I noticed the grass waving out in the meadow directly in line with where I had heard the panther scream, and, as I could tell by the moving grass the animal was coming directly toward me, I felt sure of a good shot at the big cat.

On came the moving streak of grass, until it stepped just within the border and I could see faintly outlined, through the border of grass, an object that I took to be the panther. I stood and watched it intently for almost a minute, but as it did not move I concluded the panther had seen me and might make off at any minute through the tall grass and I would lose my chance; so I took deliberate aim and fired and the dim outline disappeared. I waited half a minute longer to see it did not stir; then I walked up to see my kill; but imagine my chagrin and surprise when I saw, there on the ground by the side of a large boulder, a little mountain beaver, with its head completely blown off, and instead of ridding the country of one of the most implacable enemies of the deer and other large game, I had killed one of those innocent, peace-loving creatures, the mountain beaver. This is the only one I have ever seen out of its burrow in daylight.

The young are four in number and are brought forth in June; they grow rapidly and by December are almost as large as the old ones.

They are confiding little animals and are easily caught in traps, but very difficult to hold, for like the beaver and muskrat, the bones of the legs are easily broken and when this occurs the sharp slivers of bone soon sever the tendons and free the animal.

Their pelts, I believe, have no commercial value, which, no doubt, is due to the fact that the animals are so little known, and are so difficult to hold in a trap as set by the average trapper, that the pelts of these animals have never been introduced into the fur markets. The fur is fairly strong, thick and smooth like that of the rabbit and quite free from large coarse hair like the beaver and muskrat. Their burrows run parallel with the surface of the ground and branch out in all directions. And trickling along the bottom of these little tunnels water is always found. The country where they live is fairly well watered, but if one should be in need of a drink of water at any time where one of their burrows can be found it is only necessary to dam up one of their little tunnels and it will soon fill with clear cold water.

I know of no place in the mountains of the West that is so fascinating to the lover

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of solitude as the places where the homes of these little creatures are found. Picture to yourself a deep and dense forest of firs, cedars, and hemlocks with their branches so interlaced one or two hundred feet above that the rays of the sun rarely or never reach the ground; there in the deep twilight shade the tall winter bracken grows three or four feet high, its dark green fronds growing from a common center bending gracefully out, the tips of their curved stems pointing downward. Not a sound to be heard except those made by nature herself in the voice of the wood pigeon and indigo bunting in the higher branches, while down in the twilight can be heard the chatter of the red squirrel, or the silvery trill of the hermit or wood thrush, the most liquid and inspiring of all bird notes, while far up in the tops of these majestic trees the summer breeze is singing a lullaby soft and low.

Here is the place to commune with nature and nature's God. Here is the place the stoic red man of bygone ages came to commune with the great Manitou, the giver of all good things. And we as lovers of nature and the silent places sit in reverence beneath those tall trees and commune with our God as did the red man of old. It is here after the sun has hid its face behind the western hills that first fall the shadows of evening and as the daylight fades away other forms of life and other sounds come through the aisles of the dark forest, the booming call of the great horned owl, as king of his species, and the little saw whet, the smallest of all the owls, little larger than a sparrow, with a voice out of all proportion to its size, sends its love call through the night.

It is here the flying squirrel, another creature of the night, which has been snugly tucked away during the day in some hollow stump or abandoned woodpecker's hole, comes forth to engage in revelry with other night prowlers of the forest, where it sits perched at a dizzy height upon some dead branch projecting from the bowl of one of those monarchs of the forest and then, launching itself into space with limbs outstretched, it volplanes swiftly downward through the darkness where it lights upon the trunk of another tree and scurries up and sails away again. It is then the little Sewelel, or Mountain Beaver, ventures timidly from his home and wanders forth, seldom going far from his burrow. Unlike other animals such as the beaver, muskrat, and meadow mouse he does not have a well-defined runway out through the vegetation from his front door, but seems to be very careful not to go often enough by the same route to make a well defined trail. Whether this is a precaution to prevent predatory animals from waylaying him on a well-established trail while out in search of food or whether the little fellow is practically devoid of some preconceived idea of just what he wants to do when he leaves his burrow and thus wanders aimlessly about is a question.

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The Mountain Beaver at Home

They are the least known of our American animals, I believe, on account of their retiring habits. Indeed people living for years where they are plentiful have never seen one

I know of no place in the mountains of the West that is so fascinating to the lover of solitude as the places where the homes of these little creatures are found

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The Porcupig Baby

All his feet grasp the branches of a tree as if they were hands

The porcupig moves about in a tree somewhat as a monkey does

I have come upon him in a poplar tree feasting on the bark and sleeping amid the singing leaves of the aspen

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The Porcupig Baby

By Cornelia J. Stanwood

ON the pasture hillside below Birdsacre Cottage, I nearly stepped on a young porcupine. It was arbutus or mayflower time, the days when one should look for baby porcupines. This animal, called also the porcupig or hedgehog, furnished the Micmac Indians, fifty or seventy-five years ago, with a sufficient supply of spines or quills with which to embroider all the boxes and baskets they made. Each article was finely executed in wood, and covered with the embroidered bark. The natural tones of the quills are black and white. The white quills were tinted soft colors known only to the Indian dyers, and thus the Indian craftsmen secured a full palette of colors with which to work. A popular pattern was the zigzag or wave diaper, a design as old as the hieroglyphics of the ancient Egyptians.

The baby porcupig was about a foot long. He waddled away from me as rapidly as his short, strong legs would carry him, and hid his head under a granite boulder. I touched him with a stick I held in my hand, and he quickly raised his wide, pointed tail as if it were fastened to his body by a hinge, and struck at the club. If my stick had been the nose of a dog, it would have been filled with quills anywhere from an inch to a fourth of an inch in length. The quills of the mature animal are about three times as long. I tried to tempt the porcupig to climb the stick I held in my hand, but he was too wise to be thus fooled. When the animal is slightly younger, he will mount a stick held in front of him, and one can carry him about clinging to the cane. Or, by protecting the hands with stout gloves, one can lift him from beneath as one would a kitten, and pose him, being careful always not to let the hands come within range of that terribly barbed tail which springs up so easily and forcefully at the slightest appearance of danger.

As I was wearing a thick, flexible hat but no gloves, I placed the hat carefully over the back of the hedgehog. It was a perfect fit, I could just make the opposite edges of the rim meet under his fat little body. All I feared were his barbs, as the small porcupigs I had handled before had shown no tendency to bite or scratch. He looked so ridiculously fierce for so harmless a creature that then and there I determined to borrow him, if possible, get acquainted, and take his photograph.

When I put my hat about the youngster to lift him, his quills stuck into the hat. I think I picked out hundreds of spines. There is, also, a protective row of quills across the upper back of the hedgehog—at the base of the neck—and a tuft of quills partially encircles the eye. The quills of the porcupig, while he is in repose, are lowered, and point toward the back of his body, but at a sound, or the approach of danger, he hides his head under a rock, log, or bush, turns his strong, heavy tail toward the moving object, and erects all the spear points on his body. Then he not only springs his tail to strike his foe, but he jumps to the right or left, and swings

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his head around. As the quills of the hedgehog are rather loosely inserted, they come out easily. If one is so unfortunate as to place his hand within range of these barbs, they pierce the flesh, and remain imbedded when the hand is withdrawn. Although the porcupine walks so slowly, and moves through the woods so noisily, he is quite immune from danger since all his vulnerable points are protected by spines. The porcupig has, also, four, long, black, ivory nails on his front paws, and five on his hind paws. All his feet grasp the branches of a tree as if they were hands, and he moves about in the tree somewhat as a monkey does although he is less agile.

I carried the bantling without difficulty and, upon reaching home, placed him in a rectangular bushel crate, covered him with narrow boards, and put a weight on the top of the board so that he could not get out.

Then a problem presented itself. What could I give the small creature to eat? In winter when the ground was covered with snow, I have seen a mound of hemlock twigs under a hemlock tree, while a napping porcupig in the top of the tree betrayed only too plainly the identity of the woodchopper. Undoubtedly the "beastie" had camped there during the cold weather and fed on the wood, bark, and twigs of the hemlock tree. I have likewise noticed the snow covered with gray birch bark where the same depredator had been living on the inner bark of the gray birch. Again I have come upon him in a poplar tree, feasting on the bark, and sleeping amid the singing leaves of the aspen.

Pondering the matter, I came to the conclusion that I must give him some stems to gnaw, and decided also to tempt his appetite with an apple. The porcupig baby was easily satisfied. He gnawed off a little bark, and ate a slice of apple when I put it between his sharp, chisel-shaped teeth. I then offered him a little milk in a medicine dropper. This he seemed to enjoy thoroughly, clasping both paws around the dropper, or my finger while he closed his eyes and sucked the milk from the dropper contentedly. I had to lift him always in my hat, and hold him back downward on my knee. Later I substituted water for milk, but I gave it to him from the dropper just the same.

During the day the porcupine slept much, and ate little. As it grew dark, he began to gnaw wood, and eat apples. After a few days in the house, he would consume six apples during a single night, and gnaw some bark from the stems of gray birch, poplar, and larch saplings. Later I discovered that he was very fond of the young leaves of beech, gray birch, poplar and larch trees.

At night, I covered the crate with a warm coat, and left it in my chamber. Often he awoke me gnawing wood. Sometimes he made such a noise that I feared any moment his crate might collapse. Sometimes he cried like a baby. When he startled me from my slumbers with this cry of distress, which like the notes of most wild creatures seemed to have a ventriloquial quality, I felt very sorry for the lonesome, baby porcupig.

After a time, I discovered that he sang. Sitting in the next chamber, I heard sounds like a person talking baby-talk to some child or animal. Listening carefully, I learned that it was the baby porcupine crooning. The strain resembled the tones of a child saying in a high sweet voice, *"Come here to me, you dear thing."* One evening, about two weeks after I took the little fellow, and the day before I photographed him, while sitting in the adjoining chamber, I heard the porcupine give a concert. In the distance, his notes sounded like the syllables *"do."* Nearer to, each sound seemed to consist of several notes run together. One song ran something like *"Do—do,do,do,-*

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do,do" in scale. Another began on high *"do"* and consisted of eight or ten notes, the last syllable dropping to middle *"do."* A third song consisted of four or five notes on low *"do."* If I sang, he answered. Sometimes I hummed on low *"do"* and he uttered similar tones. Again he responded on middle *"do"* or high *"do."* Once or twice I lilted a few notes in quick waltz time, and it seemed to me that he imitated the time. He sang for an hour or more. The next day he was cross, nipped my thumb so sharply with his teeth that he drew blood, and scratched with his claws. I was much surprised, as I had never had such an experience with a porcupig before.

While photographing the little fellow, we kept him climbing some time in the sun. He became tired, and naturally, he was sleepy in the daytime. After mounting a tree, he ate the tender leaves a few moments, and then he wanted to take a nap. Because we tried to keep him awake, and because we returned him to the crate, he cried pitifully, becoming very sulky. During the succeeding week, he sang but a few notes on two occasions, and seemed less friendly than heretofore.

After the young porcupine had visited me for about three weeks, I carried him back to the pasture hillside whence he came. Immediately he waddled to a fir tree and began to climb, nor was he satisfied until he had reached the top. I placed a half-dozen apples in a hollow near the foot of the tree, and left him. Three hours later I visited the spot but he had disappeared. The following day I saw where he had eaten part of an apple. Evidently he had found an abundance of food more to his liking than apples. Fortunately the weather was dry, and favorable for a little porcupig that was just getting used to the woods again.

It was with a decided feeling of regret that I let the little creature have his freedom for in the short space of time that I had been caring for him and photographing him I had become decidedly fond of him. Indeed it was a hard pull to give him his liberty and only the fact that I knew he deserved it and that it would have been quite wrong of me to keep him in captivity made it possible for me to give him back to the wood from which I had taken him. But that feeling did not detract in any way from the loneliness I felt for several nights thereafter when I thought of the roly-poly, curious little fellow whom I had had for an all too brief visit from the out-of-doors.

Yet his visit, brief though it was, left with me many interesting memories. I had become more intimately acquainted with this deliberate little stroller of the forest and I felt that I knew him much better than I ever had before.

I was delighted to have discovered that the harmless and apparently stupid animal that I meet so frequently in the woods and see so often in the tree-tops along the highways, could sing sweetly.

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The Troubles of Father Emu

By Lee S. Crandall

Curator of Birds of the New York Zoölogical Park

WOMAN suffrage, after years of struggle and sacrifice, at last has come into its own. Wives and mothers, in most of our states, are casting their votes with husbands and sons. In England, once torn with strife over the question of equality of women, the first feminine member of Parliament already has taken her seat. Thus we see in actual operation a tremendous change in world economics, which but recently threatened the peace of nations.

Yet this is no new thing in the world. Many years ago, back in the dim ages when species were in the making and primitive man fought with the other beasts for mere existence, female suffrage came to a great terrestrial bird in the trackless bush of Australia. The emu, as we know it to-day, still is a shining example of that division of labor which we fondly believe to be ultra modern. For as soon as the eggs are laid, the female promptly loses all interest in them, and leaves the duties of incubation and rearing the young to the willing father.

Emus are not the only birds which have achieved this distinction. Other species, such as the curious little quail-like hemipodes and the South American tinamous, are known to possess it. These are all primitive birds, believed to be of ancient origin, and while some of the more modern sandpipers have the trait, there is reason to suppose it to be one of long standing.

The emu is a large bird, half the size of an ostrich. It is found only in Australia, where there is also a closely related bird, the cassowary. The wings are rudimentary, so that the bird is unable to fly. But it does not suffer from this lack, for its strong legs enable it to run with great speed and agility. In fact, the emu is hard to catch and a dangerous opponent when cornered, for it is as elusive as an eel and can kick with tremendous force. When engaged in combat it leaps high in the air, and launches a trip-hammer blow strong enough to send a heavy man head over heels.

The feathers are loose and hairlike, with much the same consistency as dried sea-weed. Each feather appears to be double, for the after-shaft, a small feather which accompanies the main feather in some birds, here reaches an unusual size. In spite of its apparent inefficiency, however, the plumage is quite waterproof, and the emu can endure almost unlimited amounts of rain, snow and cold without discomfort.

The voice of the emu is a resonant boom. In the male it is a rapid, comparatively light tattoo. The female possesses a large air sac, which hangs down below the chest, and with this she makes, at short intervals, a sound like the slow beating of a drum. These notes, with variations, are used for all vocal purposes, including courtship. In the emu, advanced creature that it is, the female makes the advances and it is then

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that her ventriloquial throbs are heard at their best.

Many emus have been kept in the New York Zoological Park, but it is only in recent years that they have been induced to breed here. In 1914 new quarters for our emus became available, including several acres of pasture, divided into two or three large corrals. They had not been there long when the deep-toned booming of courtship was heard.

In Australia we find our seasons reversed. Summer in the antipodes comes during our winter, autumn and spring being correspondingly upset. Since most birds the world over nest in the spring, to give the young time to grow before the coming of cold weather, the emu in Australia breeds at a season which corresponds to our autumn. Habits ages old are hard to break, and captive emus in the northern hemisphere, far from their native home, feel the mating instinct at almost exactly the same time as if they were in Australia. That this happens to be late autumn or the dead of winter matters no whit.

The question of reaction to changed conditions in regard to nesting periods is still unsolved in many cases. Some birds change their habits to correspond with the conditions as they find them. Others nest at their normal time, no matter what the season may be in their new home. The cereopsis goose, a rare bird from Australia and Tasmania, has nested on many occasions in the New York Zoological Park, but always in our spring. This bird, a fellow-citizen of the emu, has conformed to bird customs in America, and nests always in May or June. An explanation may be found in the fact that it is somewhat less hardy than the emu and finds the rigors of winter a check to love-making. The emu, however, cares not for snow or cold, and so it is that we find it nesting in January, when most wild life is at its lowest ebb.

Thus it was that early in 1915, during a period of particularly cold weather, as the keeper glanced about the little room where the emus spent the night, his eye fell upon a suspicious looking heap of straw. Examination brought to light an egg, and a wonderful egg it was. Nearly six inches long and shaped much like a hen's egg, it was pale green in color, heavily reticulated with an intricate web of a darker shade that glistened like finest porcelain. We were prepared for this emergency. Carefully picking up the emu egg, the keeper substituted a wooden model, which had been painted in imitation of the proper color but without the marvelous artistry of the bird. After covering up the nest egg, the real one was placed in a warm closet, where it would be safe from the cold.

After a period of careful watching, we found that the emu lady was in no hurry with her part of the programme, for she laid eggs only after intervals of five or six days. Great vigilance was required to secure them before they were frozen and many weary hours were passed in fruitless waiting. Watchful as we were, we found that the potential father was even more so, for as soon as the egg was deposited, he took charge at once, covering it with straw and debris, so that it might be well protected. The eggs were laid promiscuously about the room, with no attempt to form a nest. As each one was collected a substitute was put in its place and apparently the birds never discovered that we had deceived them.

After six eggs had been collected, we entered the room one morning to find that the male's instincts were holding true, for he had gathered the six dummies in a small depression in the floor and was brooding them in good faith. We left him for a day or two to make certain that he was

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in earnest. Then we removed the wooden eggs and entrusted the real ones to his care.

A fairly gentle bird at all times, he had now become the acme of docility. Nothing could induce him to leave the nest. During the entire period of incubation he was never seen to leave it, and fearing that he might suffer from lack of food, we placed it where he could eat without rising.

The period of incubation in the emu is fifty-six days, the longest for any known bird. During the entire eight weeks the female never showed the slightest interest, and entered the room only for food. For two or three days before the fifty-six were up, the chicks could be heard moving in the shells and their little squeals could plainly be heard. Due to our own inexperience and perhaps that of the bird as well, only one baby finally emerged.

For two or three days the male stuck closely to the nest while the chick made acquaintance with the world outside by projecting his head from beneath his father's breast. Finally, when he had gained strength and courage, he scrambled forth in search of food. Then we discovered that a wonderful egg may produce as wonderful a chick. For the tiny creature, about the size of a small bantam hen, was striped from head to tail with alternating bands of brown and white. Altogether, he was a fascinating creature and all our efforts were devoted to finding him the food he liked best. At first he would take only bits of fresh lettuce leaves, with an occasional morsel of hard boiled egg. As he grew, small pieces of dried biscuit, dampened with water, were added. So rapid was the little creature's growth that by the time the weather was mild enough for him to be turned out he could graze in the enclosure with his father and eat the usual emu ration of crushed oats or barley and cubes of dry bread.

Because of the cold weather it was necessary to confine father and chick to the house for several weeks. When spring had really come, we turned the pair out with all confidence, thinking that a happy family reunion was about to take place. But alas for our hopes! The mother was utterly indifferent to her spouse and their offspring and looked at them with unseeing eyes. The father, on his part, was distinctly hostile. When his wife, actuated by chance rather than curiosity, happened near them the male rushed at her with feathers erect, and leaping high in the air, launched a kick which, if it had reached its mark, might have been fatal. But emus are practised fighters and suddenly drawing herself erect and making a lightning side twist, she easily eluded the blow. Mother emu had no desire to quarrel; she asked only to be allowed to live her own life in peace. But her husband was now aroused and with a rattle of his war drum rushed after her in frenzied rage, the chick trailing after, squealing his protests.

It was quite evident that there was to be no happy emu family and fearing catastrophe, we hastened to let the female into an adjoining paddock. Even then the father was not satisfied and continued to rush up and down the fence, in the vain attempt to reach his now hated mate. To save the feathers of his neck and breast, which were not made to resist the pressure of heavy wire, we were forced to place the unprotesting mother out of his sight.

Peace and contentment now reigned. Father and chick addressed themselves to the business of reducing the available grass in the field. Nature never produced a more solicitous parent. The chick was not allowed to go far from the father's side and if it attempted to do so, a rapping signal of the snare drum quickly brought it back, for it was a model of obedience. If separated from its parent, it piped unceas-

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ingly in its queer little voice and ran contentedly to its father's side when released.

By autumn the baby down had been replaced by a heavy coat of excelsior-like feathers, and except for its size, the young emu was a replica of its parents. Thinking that by now the father should regard his offspring as safe from attack, we attempted to return the mother to their company. He would have none of her, however, and she again became a willing exile. For another year he remained hovering about his now well-grown youngster, showering upon it the attentions it no longer needed. Only then, when the baby was nearly two years old, would he consent to a reunion with the discarded wife.

In order to strengthen the husband's still wavering affection, the sturdy son was removed to distant quarters. Even at this late day, the separation was a severe wrench, but in a few days the loss had been mutually forgotten. The minds of birds are marvelous in many ways, but after all, they are but primitive.

The conjugal bond thus renewed and firmly established, matters progressed so well that early in 1917, six more eggs were laid. They were deposited in the same room, and the male was solicitous as ever. But he had found the place somewhat unsuited for the purposes of incubation and when the father showed by his manner that the time was ripe, we arranged a tempting nest in a vestibule adjoining and garnished it with six handsome eggs of wood. Our good intentions, however, went for naught. He refused to be distracted from his way and gouging a depression in the original spot, he made his bed and proceeded to lie in it, eggs or no eggs. Gracefully admitting defeat, we gave him his way and the eight weeks' vigil began.

This time, three chicks were hatched and thrived exceedingly. The father's suspicion of his mate was as strong as ever and she passed the summer in seclusion. As cold weather approached, we thought to deceive the birds and bring about a quicker reunion. One frosty morning, the youngsters were driven indoors and placed in a large, roomy enclosure, where they would be protected from the cold and could pass the winter in peace and comfort. However, all concerned were contrarily inclined, and after a week of turmoil we returned the chicks to their indignant father.

Now reconciled to the birds' eccentricities, we did not look for another mating until the following year. True to form, in 1919, another clutch appeared. At about the same time, the first chick, hatched in 1915, which had proved to be a male, mated with a female newly arrived from Australia. In due course, eggs appeared, but the young cock, with the irresponsibility of youth, refused to see his duty and loss of the nest was threatened. Just as we were in the last throes of despair the old male began incubating his own eggs. Inspiration caused us to give him also the eggs his son refused to own. It was a big nestful, but the old fellow was faithful to the last. Five healthy chicks, three from one clutch and two from the other, were safely hatched, and father Emu, with five husky, well-grown youngsters, is now the center of attraction at the Zoological Park.

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Birds That Build Tenements

By Gene Stone

BIRDS are usually sociable among themselves, but of all these friendly little feathered folk the sociable weaver-bird of South Africa is one of the most charming. It is a sparrowlike little creature, having, in common with other weaver-birds, a strong conical bill, long, strong claws and pointed wings. It is also called the sociable grosbeak, but the French have given it the happy designation of Republican. Its republic consists of a real tenement-house so large that it may be, and doubtless often is, mistaken for a native hut when the South African traveler sees it from a distance.

The spirit of coöperation must be very strong indeed in this small republican for as many as three hundred and twenty birds have been known to join together in a feathered building corporation for the purpose of constructing a single tenement house in which to live and carry on all their domestic concerns.

Unlike human tenement builders, the weavers start work on the roof of their dwelling. Nature herself, accommodating old soul that she is, furnishes the foundation and beams free of any charge whatever. These are in the shape of a tree, which is selected by the quaint little builders—or perhaps by a committee appointed by the president—who knows? for its height and strength and the slim smoothness of its trunk and branches. When a proper tree has been chosen, everybody who can flick a feather at once sets out in search of grass and begins bringing it by the beakful. This is then cleverly woven into an umbrella-shaped roof that may be six feet across, the limbs of the tree supporting it. When it is finished it looks very much like the top of a native house, thatched very evenly and slanting down at a good angle to keep out the rain, giving the whole the appearance of a tree growing right up through a house and carrying the thatched roof on its branches.

When the busy little architects are satisfied that their roof is water-tight, each pair begins to build its own special apartment underneath. These little separate nests are also woven of grass and joined together until the structure looks like an enormous mushroom whose under surface is dotted with holes. These holes are the doors of the various rooms in the tenement-house.

The canny little birds have protected themselves very cleverly from the rain; have *almost* succeeded in preventing the attacks of snakes; and have provided a very airy, delightful and entertaining residence. So well do they like it that they live in it year after year, but they will not occupy the same nest for two seasons. That, however, is easily arranged for—more grass to the roof and a new circle of apartments may easily be added.

Thus the tenement grows from season to season until the weight of these cartloads of material becomes too great for the tree itself, when a great calamity ensues and the destruction of a mighty work of architecture is the result. Quite cheerfully, however, the upset building corporation shakes its feathers and starts out to begin all over again—a good example of persistence and honorable business partnership for all the world to see and profit by.

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WHAT SCOUTS DO

"Sparks from Many Camp Fires"

"When You Go to Camp"
By Dan Beard.

"Pack Wisdom"
By Belmore Browne.

"Tenting"
By Stirling Bird.

"The Scout Camp Fire"

"Overnight Hike Comfort"
By Ladd Plumley.

"Troubles à la Carte"
By W. A. Palmer.

"The Glad Hand"
By Dan Beard.

"In the Scout Cave"
By the Cave Scout.

"Scout Ideals"
By John D. Rockefeller, Jr.

"What's a Boy Scout?"

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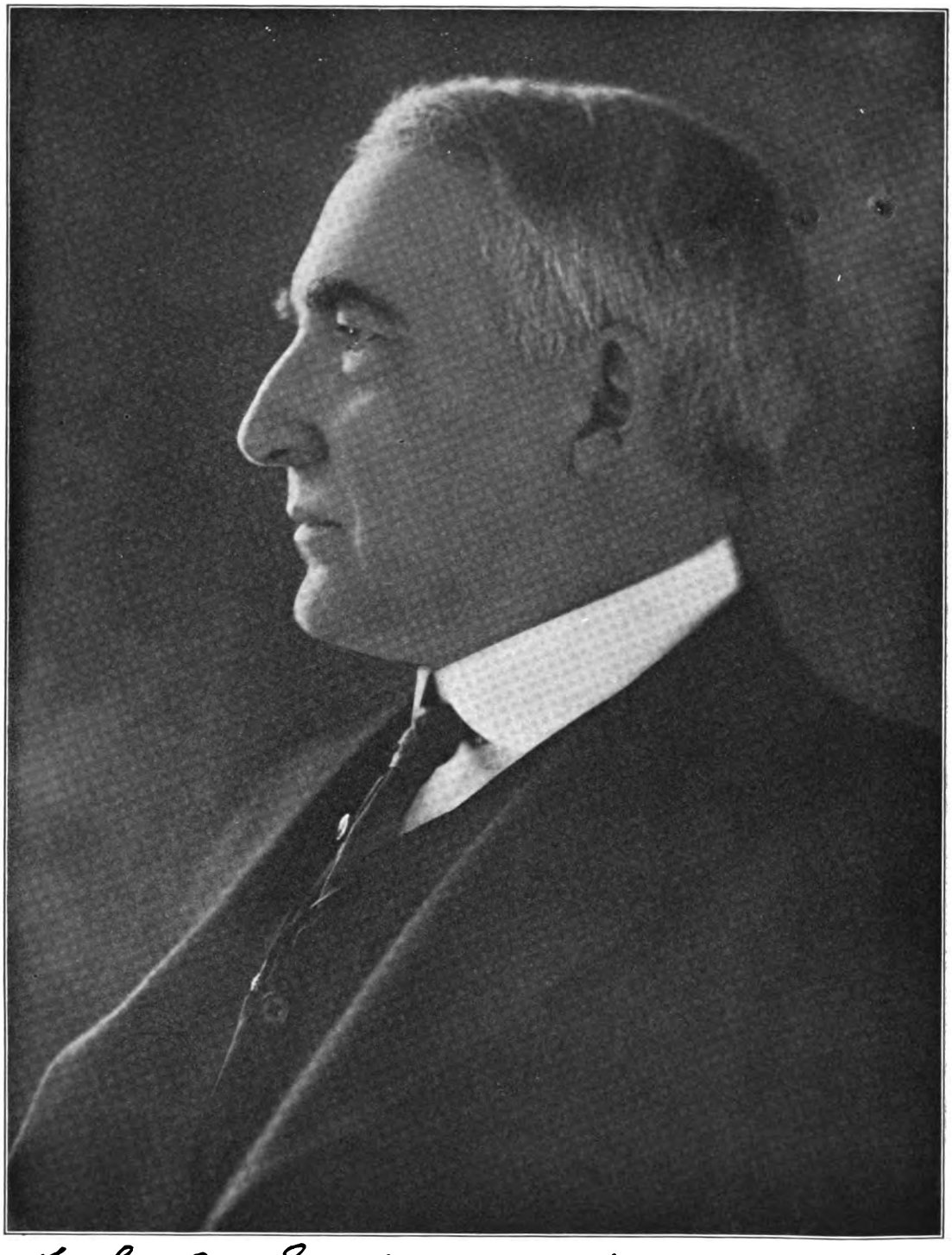

To the Boy Scouts of America,
The future defenders and directors
of the republic. Warren G. Harding

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Sparks from Many Camp Fires

WHERE will you find a more striking example of Scout courage and scorn of obstacles than that of the one-armed Boy Scout, Howard Rote of Vineland, N. J., who dove from the upper deck of a yacht and rescued a child who had fallen off a public pier. Both the scout and the child were in danger of being crushed between the pier and the swinging yacht before the rescue could be effected. This is not the first time Rote has qualified as a life saver. Twice before he has saved persons from drowning, in one case rendering artificial respiration to the unconscious victim, thus doubly saving his life. Rote is an Eagle Scout.

Just a Tenderfoot—But!

Down in Mobile, Ala., is a small scout named Julian Savage. He is only a tenderfoot, but he is tremendously interested in Scouting, especially in first aid work, and has for a long time been right on the spot wherever the older boys were getting first aid training. So far—so good. But all at once came the Tenderfoot's big hour when he was no spectator, but the "whole show." His little brother accidentally thrust his arm through a window pane, severing an artery. Julian was at hand and in action instantly. He improvised a tourniquet.

Good Turns Big and Little

Here are a few good turns done by different individual Scouts in a Pennsylvania town, reported anonymously:

1. A crippled girl slipped and fell getting off a street car. I helped her up and carried her basket home. Refused a tip.
2. Found a dollar and gave it to woman who lost it.
3. Saved a little kitten from a mad dog.
4. Stopped a little boy on his sled from being run over by an auto.
5. Helped push a crippled man home. He rides a tricycle, which he couldn't start on icy pavements.
6. Warned a man that a fellow was burglarizing his mill.

Scouting in Porto Rico

In the face of tremendous difficulties, Mr. J. L. Santiago-Cabrera, pastor of the First Presbyterian Church of Aguardilla, Porto Rico, has persisted in his efforts to establish a Scout troop and has succeeded in a way which is a credit both to himself and the boys under his charge. "Our boys have learned that to be scouts means to be useful and helpful. When the epidemic of bubonic plague broke out on the island, sanitary officials made strict laws as preventive measures against the spread of this terrible disease. Our troop was on the spot ready to assist. Upon receiving due instructions, they went from house to house, giving out the rulings of the Health Department and set to work themselves to work out some striking posters, emphasizing the necessity of extermination of rats as carriers of the plague."

On another occasion when a fire broke out in the center of the town at two o'clock in the morning, the scoutmaster got into his uniform and hurried along the street blowing his whistle. The signal was heard

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and obeyed. In a few moments six proud scouts were by his side, ready to do whatever was required of them. The two who had charge of the first aid pouch had occasion to demonstrate their skill in this line by rendering assistance to a fireman who cut his hand and the others stood on guard duty over property when it was carried to a place of safety.

Scouts Prevent Train Wreck

You never know when you are going to be called upon to think and act quickly in an emergency. When James Caldwell and Clarence Swingholm came sauntering back from an over-night hike to Camp Giford, the Omaha Scout Camp, they hadn't the remotest idea that all in a minute it would be up to them to save the lives of a great many people. But that was exactly what happened.

Crossing the railroad track of a main line that runs between Omaha and Chicago they discovered that a large tree was lying directly across the track. At the same time they heard the sharp whistle of the approaching passenger train rounding a curve not three hundred yards away. Pulling Caldwell's red sweater from his back as they went, the scouts ran down the track waving the scarlet danger signal frantically. The engineer stopped the train a few yards from the tree and countless human lives were undoubtedly saved because two boys were good scouts who knew their job and did it without fear or delay. It is said that the tree was a bee tree which had apparently been deserted by bee hunters, who had fled frightened when they saw where it fell.

Another Scout Who Stuck

Raymond Bennett, Eagle Scout of Troop 5, Pittsfield, Mass., suffered a frozen ear one bitter cold night last January, when the mercury ran ten below. He did not suffer this mishap on a joy ride or a skating party either, but in a strict pursuance of what he considered his duty as a scout, a solitary and self-imposed task at that. The facts are as follows: Scout Bennett discovered a broken trolley wire and stood guard over the live wire, warning approaching automobiles of danger, until an hour and a half later, a lineman arrived to repair the damage. In relating the incident the local paper remarks, "Bennett may carry a tender ear for some time to come but he has the satisfaction that he saw his duty and lived up to the scout pledge. This is a concrete example of the value of scout training and it may be assumed that the motorists who owe their lives to his action appreciate the fact."

You see how it is, Scouts, you are Scouting's best advertisement when you do a fine job like that.

An Admiral Praises Scouting

Admiral E. W. Eberle, in command of the Pacific Fleet, recently made the following fine statement as to the Boy Scout Movement.

"I have a very keen regard for the Boy Scout organization and for the principles underlying their splendid work, and I know of no organization doing more for the upbuilding in the hearts, brains and bodies of the young men of to-day, of the inspiring principles of true American Manhood.

"Our Country is constantly calling into positions of trust and great responsibility young men whose ideals of life and service are: initiative, industry, self-reliance, respect for law and rights of others, and implicit loyalty to God and Country.

"I believe these principles form the very ground-work of Boy Scout ideals and I wish to say that I believe in the Boy Scouts and watch their progress with deepest interest and concern, for, more than ever be-

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fore, it is to well-trained, loyal and patriotic young men the country is looking for safe and sane leadership in these times of emergency when the whole world is asking us to point the way to prosperity and peace."

A Plucky Boy Scout

One day last April three lads of Hayward, California, were out walking and as the water in Meek's Dam looked tempting two of them decided to go in for a swim. The third lad, Howard Burr, son of a Cherryland rancher, refused to join them, saying the water was too cold. I suppose the other two railed at his "softness" and want of pluck, as boys sometimes do, forgetting that foolhardiness isn't courage. Anyway, they plunged in and were both instantly seized with cramps. Young Burr, with great presence of mind, picked up a wooden picket and held it out to one of his companions, pulling him ashore. Then without an instant's hesitation Scout Burr dove into nine feet of water in an effort to rescue the third lad, who had already gone down. His effort was unsuccessful, but no less heroic.

Explores Cave from End of Rope

A group of scouts of Moab, Utah, headed by their scoutmaster, the Rev. W. A. Spencer, set out recently to explore a curious cave, which is really a huge rock in a cliff which penetrates horizontally into a solid wall of rock for a distance of more than one hundred yards, where it suddenly takes a sheer drop for a distance of some 170 feet. Scout Clay Hinton was lowered at the end of a rope down the shaft and made a thorough exploration of the chasm before he was pulled back to safety. It is thought that the cave may have been a cliff dweller's habitation. While the cave has been for many years a point of curiosity and has been frequently visited, so far as is known, young Hinton is the only person who has ventured to the bottom.

His Chance for a Good Turn

A group of New Orleans scouts were just returning from a hike, hungry, husky and happy. They swarmed on to a street car, each tumbling over his fellow in his zeal to get aboard. All but one scout who didn't get aboard at all, having other business to attend to. He had seen what the others had not, that just as the car came up, a man who had been waiting for it had fallen, apparently ill, on the sidewalk. The scout let the car go without him, and gave his attention to the sick man. As soon as the latter recovered consciousness, the boy found out where he lived, and put him on the next car and stayed with him until the man was sufficiently recovered to continue his journey home alone. Not so much for a scout to do—just a little Good Turn—but it meant leaving his chums, postponing his supper, taking responsibility, thinking of somebody else first, forgetting himself. Not so bad, we think.

Another Modest Hero

You scouts are getting into the papers these days. One of the latest tales given out by the New York press pertaining to scout courage and efficiency is the story of Frank Catalano, a fourteen-year-old scout, who entered a blazing tenement, saved six persons and a dog and kept so still about his feat that for two weeks even his own family knew nothing of what had happened. When the boy's father having read the story of his son's heroism in a newspaper questioned the lad, the latter merely said:

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"Well, I wasn't going to be a coward when I could hear a lot of people howling around at the windows and it looked as if they might be burned to death. There wasn't anything to do but to crawl down on my stomach and pull them out if I could. And that's all there is about it."

The saving of the dog he explained as follows: "I wasn't going to have a dog burned to death, no matter what kind of a dog he was." As to Scouting and the fun of being a scout, Frank is much less reticent than he is about his own heroism. "The scouts are the best organization in America," he announced to a reporter. "My father wasn't very crazy about letting me out much after school until I joined the scouts. Now he knows that it is all right."

A Blind Eagle

Blind since he was ten years old, Albert Bernhardt of Mount Carmel, Ill., never for a minute allowed himself to think he couldn't do what other boys did. He has worked his way up through all the stages of Scouting until now he has attained the rank of Eagle Scout. He is a good student and is proficient in several branches of sport. In short he is a "regular fellow" in every way and a splendid example of scout manliness and ambition.

Saves Two Hundred Pounder

Albert Rowe, of Park Ave., Babylon, L. I., a Boy Scout weighing about 80 pounds, recently fished out of icy waters with his hockey stick a gentleman who tips the scales at 200, returned and rescued two other persons, then skated merrily away, leaving his beneficiaries to discover their rescuer's identity later. The boy was some distance from the spot where the ice broke, letting several persons into the water. Instantly he skated as far as he could on solid ice and then, leaping from chunk to chunk, like a logman on floating lumber, got to the scene of the disaster and got in his first aid work in short order, "and he won't let us do a thing to show our appreciation," moans one of the rescued party.

Greater Love Hath No Man

Allen Daggett, fourteen year old Boy Scout of Oakland, Cal., gave his life to save his younger brother from being killed by an electric train in June last. He regained consciousness a few moments before he died and his first question was for his brother. Upon being assured of the younger lad's safety he smiled content "I couldn't have done anything else," he said, "I'm a scout," and the word "scout" was the last on his lips.

Boy Scout Radio Picks up Stolen Car

A practical result of radio Scouting was recently shown when two Boy Scout amateurs got on their receiver a broadcast police warning as to a stolen car and subsequently discovered and reported the whereabouts of the roadster to the police.

What They Did With the Money

For over a year past Chester, New York, scouts have been doing volunteer traffic duty at a dangerous pass under the railroad tracks, warning motorists of the bad approach and letting them know when the road was clear. Grateful tourists have from time to time left small sums of money with the young guards in acknowledgment of their services. No doubt the donors fancied the boys flocking to ice cream parlors or movies on their small gains or perhaps saving up thriftily for the summer camping season. But what they actually

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did with the little accumulation was to purchase an artificial limb for a man who had been seriously injured in the pass by an automobilist whose name had never been learned and who had paid no damages, because he never stopped to see what harm his carelessness had wrought.

A Scout's Responsible

William H. Furlong of the highway department of San Antonio was recently surprised and impressed by a respectful protest made formally in writing by a Boy Scout. The letter ran thus:

"I am taking my 'safety first' merit badge, and one of the requirements is that 'I must produce satisfactory evidence that I have done all in my power to correct the most serious violation of public safety principles that has come under by observation,' so I wish to call to your attention that the law prohibiting automobiles from passing street cars loading or discharging is openly violated by autoists. I want to know if you could not find some means of having this law enforced, as it would save a number of lives and many from injury."

"If every citizen was as earnest in his desire to obey these laws as this young scout," Mr. Furlong remarked, "we would have fewer accidents."

More Scouts on School Honor List

From Dowagiac, Mich., comes the report that 82 per cent of the boys enrolled in its eighth grade, and 60 per cent of the boys enrolled in the Junior High Department are scouts. With one exception every boy whose name was on the Honor Roll for high rank in scholarship was a scout. On this Honor Roll list were six Star Scouts, six Life Scouts and a number of Merit Badge Scouts. In fact, all these Scout Honor men have an average of twelve Merit Badges each and one has twenty-two to his credit. The Junior High School of which Scout Commissioner Johnston is Principal, devotes one period a week to scout work with fine results.

Saved by Silence

Out in Lincoln, Nebraska, last August, some Boy Scouts had a chance to save a woman's life by rendering a unique good turn. Declared by her physician to be near the point of death as a result of an attack of poisoning and nervous collapse, a certain Mrs. Gardner was given but a few days to live, unless she could be kept absolutely guarded from any noise whatsoever, which seemed rather an impossible feat, as the slightest sound of passing traffic reaching her, even through closed doors, sent her into convulsions.

The doctor appealed for aid to the mayor. The mayor referred him to the police department. The police department was sympathetic and regretful, but had not a man to spare to patrol the street. They did have a bright idea, however, the same bright idea that has suggested itself to so many other persons and bodies in an hour of need, "Why not ask the Boy Scouts?" asked the Police Department. Why not, indeed? The doctor went to a scoutmaster. The scoutmaster called his boys together and presented the case. The troop unanimously promised its aid. It was immediately organized for action, a scout was kept on guard day and night on either side of the house, stopping all passers-by and explaining the situation. The patrol was extended to the street and was maintained by the boys in two-hour shifts. The work went on for a week. Mrs. Gardner recovered. Perhaps she would have recovered anyway, but she does not think so. Neither does her doctor. They say the Boy Scouts of Troop 31 saved her life.

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When You Go to Camp

By Dan Beard

MANY people are so accustomed to have others wait upon them that they are absolutely funny when you meet them in the woods; when their canoe runs its prow upon the sandy beach and there is a portage to make, such people stand helplessly around waiting for some red-capped porter to come and take their baggage, but the only red caps in the woods are the redheaded woodpeckers, and they will see you in Germany before they will help tote your duffel across the portage.

When one gets into the real woods, even if it is only in Maine, Wisconsin, the Adirondacks, or the southern pine forests, one soon discovers that there are no drug stores around the corner, the doctor is a long way off, the butcher, the baker, the candlestick maker, trolley cars, telephone and taxicabs are not within reach, sight or hearing; then a fellow begins to realize that it is up to himself to tote his own luggage, to build his own fires, to make his own shelters, and even to help put up the other

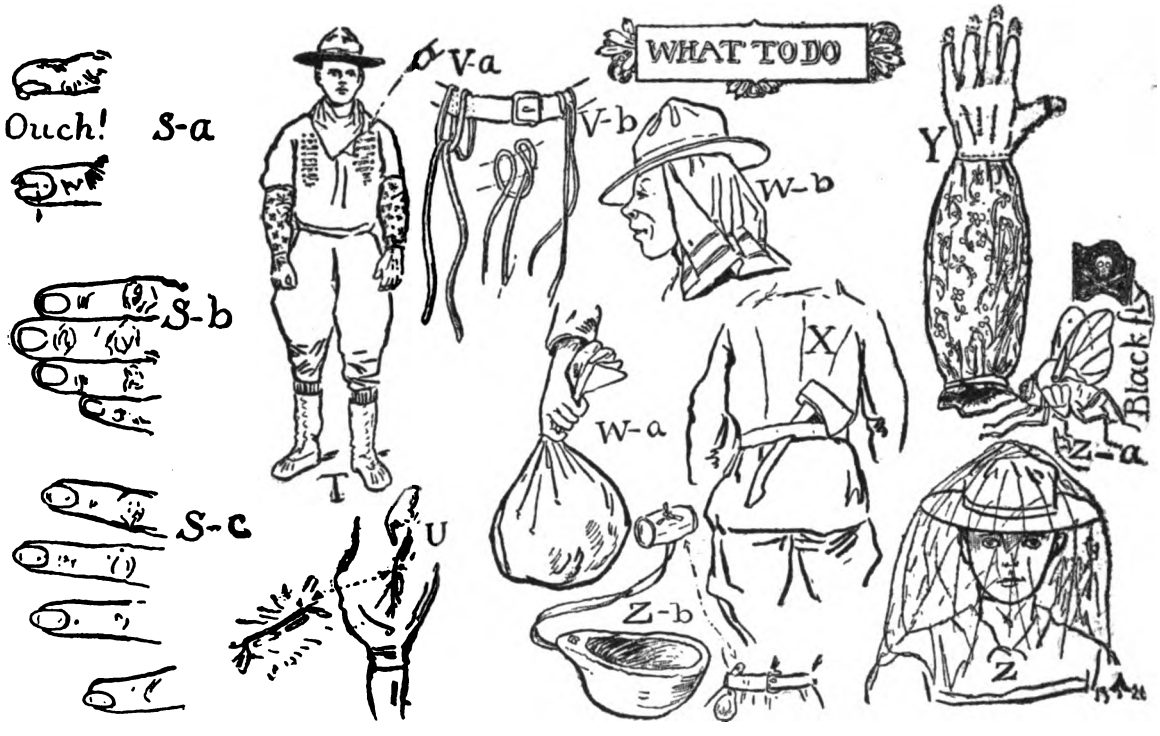

Fig. S-a, split and turned back. Fig. S-b, finger nails properly trimmed. Fig. S-c, long nails. Fig. T, safety pins on shirt. Fig. U, mending clothes. Fig. V-a, the whang string hitch. Fig. V-b, same pulled taut. Fig. W-a, handkerchief satchel. Fig. W-b, handkerchief haverlock. Fig. X, axe in belt. Fig. Y, fly glove. Fig. Z, cheesecloth veil. Fig. Z-a, magnified view of black fly. Fig. Z-b, the good old noggin.

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fellows' tents, or to cook the meal. Yes, and to wash the dishes, too, by gum!

That's one reason we outdoor people love the woods; we love to work, we love hardship, we like to get out of sight of the butler and the smirking waiter waiting for a tip, and that is also the reason that real honest-to-goodness American boys love a camp. Why, bless your soul, every one of them in his inmost heart regrets that he did not live away back in the time when the long-haired Wetzel, Daniel Boone and Simon Kenton roved the woods, or at least back when Colonel Bill Cody, Buffalo Jones and Yellowstone Kelly were dashing over the plains with General Miles, General Bell and the picturesque blond, long-haired General Custer.

Sometimes the writer is guilty of such wishes himself and he used to dream of those days when he was himself a boy. But it is really too bad that there are no longer any hostile Indians. Honest, now, is it not? And what a pity that improved firearms have made the big game mighty shy and afraid of a man with a gun. But cheer up, the joy of camping is not altogether ruined because we do not have to fight all day to save our scalps, or even because the grizzly bears refuse to chase us up a tree.

Because of the stampede for the open, in which people of all ages have joined, there are so many kinds of camps nowadays—scout camps, soldier camps, training camps, recreation camps, girls' camps and boys' camps—that it is somewhat difficult for a writer to tell what to do in order to "Be Prepared." There are freight car side track camps, gypsy wagon camps, houseboat camps, old-fashioned camp meeting camps and picnic camps; the latter dot the shores of New Jersey, the lakesides at Seattle, and their tents are mingled with big black boulders around Spokane; you will find them on the shores of Devil's Lake, North Dakota, and in the few groves that are back of Winnipeg, Manitoba.

But such camps have little attraction for the real hardboiled camper, and have no better claim to being the real thing than the more or less grand palaces built in the woods, camouflaged outside with logs or bark, and called "camps" by their untruthful owners.

When one talks of camping, or at least when WE SCOUTS talk of camping, we mean living under bark, brush or canvas in the howling wilderness, or as near a howling wilderness as our money and time will permit us to reach; in other words, we want a camp in the wildest place we can find, except when we go to our own scout camp, and even then we like it better if it is located in a wild spot.

How To Get Ready For Camp

There are some little personal things to which a scout should give his attention before he starts on a long trip. If it is going to be a real wild camp he had better go to the barber shop and get a good hair cut; just before he starts he should trim his nails down just as close as comfort will allow. Long nails, if they are well manicured, will do for the drawing room and for the office; but in camp they have a habit of turning back and—Gee Willikens, how they hurt! Or they will split down into the quick and that hurts some, too! So trim them down snug and close, do it before you start packing up your things, or you may hurt your fingers while packing.

But even before trimming your nails, go to your dentist and insist upon his making an examination of every tooth in your head; a toothache is bad enough anywhere, goodness knows, but a toothache away out in the woods with no help in sight will provoke a saint to use expressions not

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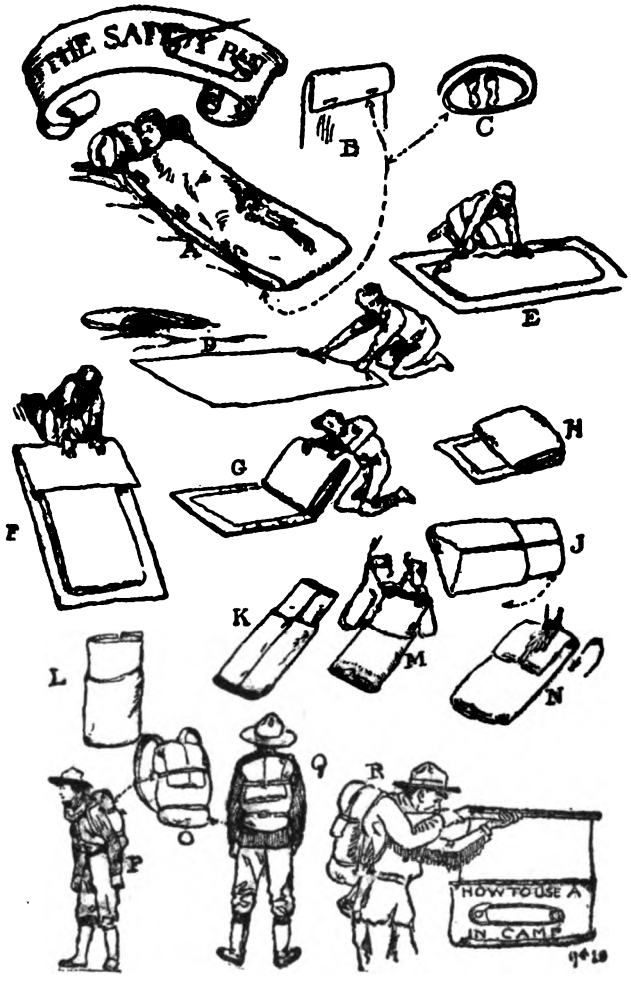
When You Go to Camp

allowed by the Scout Manual. The writer knows what he is talking about, he has been there! He once rode over Horse Plains alongside of a friend who had a bad tooth, and the friend was a real saint! His jaw was swelled out like a rubber balloon but he did not use one naughty word on the trip, notwithstanding the fact that every jolt of that horse was like sticking a knife in him.

The writer could not help it, he was thoughtlessly cruel and he laughed at his friend's lugubrious expression. Take heed, do not be so cruel, for sooner or later you will pay for such thoughtless levity. It was only next season, away up in the mountains of the British possessions on the Pacific Coast, that the friend's turn came to laugh at the writer as the latter nursed an ulcerated tooth. Wow! Wow! Wow!

Well, never mind the details, they are too painful to talk about, but remember the lesson that they teach—GO TO THE DENTIST and get a clean bill of health on the tooth question before you start for a lengthy stay in camp.



A Buckskin Man's Pocket

When we speak of his pocket that includes all of his clothes, because on the inside of his coat, if he wears one, are stuck an array of safety pins, but usually the pins are fastened onto his shirt. A safety pin is as useful to a man in camp as is a hairpin to a woman, and a woman can camp with no other outfit but a box of hairpins. One can use safety pins for clothespins when one's socks are drying at night, one can use them to pin up the blankets and thus make a sleeping bag of them, or one can use them for the purpose of temporarily mending rips and tears in one's clothes. These are only a few of the uses of the safety pin on the trail. After one has traveled with safety pins one comes to believe that they are almost indispensable.

In one of the pockets there should be a lot of bachelor buttons, the sort that you do not have to sew on to your clothes, but which fasten with a snap, something like glove buttons. There should be a pocket made in your shirt or vest to fit your note-

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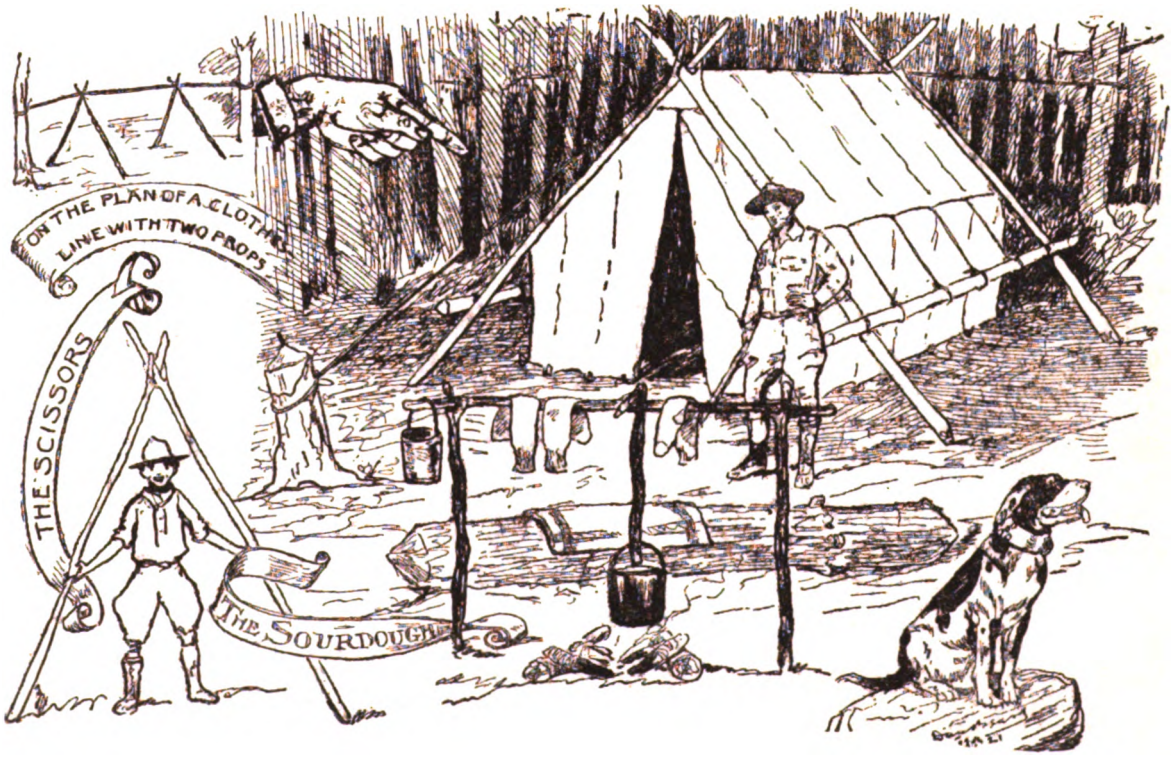
book, and a part of it stitched up to hold a pencil and a toothbrush. Your mother can do this at home for you before you leave. Then you should have a good jackknife. I always carry my jackknife in my hip pocket. A pocket compass, one that you have tested before starting on your trip, should lodge comfortably in one of your pockets, and hitched in your belt by the toggle should be your noggin, which you have carved from a burl from a tree. Also in the belt you should carry some whang strings or belt lashings; double the whang string up so that the two ends come together, tuck the loop through your belt until it comes out at the other side, then put the two ends of the string through the loop and the whang strings are fast but easily pulled out when needed; a small whetstone can find a place somewhere about your clothes, probably in the other hip pocket, and it is most useful, not only to put an edge on your knife but also on your ax.

Inside the sweat band of your hat, or around the crown on the outside of your hat, carry a gut leader with medium-sized artificial flies attached, and around your neck knot a big gaudy bandanna handkerchief; this is a most useful article, it can be used to carry game, food or duffel, or for warmth, or worn over your head for protection from insects. In the latter case put it on your head under your hat and allow it to hang over your shoulders like the haverlock worn by the soldiers of '61.

Carry your belt ax thrust through your belt at your back where it will be out of the way, not at your side as you do on parade.

If you propose traveling where there are black flies and mosquitoes, let your mother sew onto a pair of old kid gloves some chintz or calico sleeves that will reach from



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your wrists to above your elbow, cut the tips of the fingers off the gloves so that you may be able to use your hands handily, and have an elastic in the top of the sleeve to hold them onto your arm. Rigged thus the black flies and mosquitoes can only bite the ends of your fingers, and sad to say they will soon find where the ends of the fingers are located.

A piece of cheesecloth, fitted over the hat to hang down over the face, will protect that part of your anatomy from insects, but if they are not very bad, use fly dope, and add a bottle of it to your pocket outfit. One doesn't look pretty when daubed up with fly dope, but we are in the woods for sport and comfort and not to look pretty. Our vanity case has no lipstick, rouge or face powder, it only possesses a toothbrush and a bottle of fly dope.

You see when one goes camping in the neighborhood of the trout brooks, one needs to BE PREPARED, for one can catch more trout and enjoy fishing better if one is protected against the attacks of the black flies, mosquitoes, midges and noseeums.

Of course, you will not need fly dope on the picnic grounds and you will not need your pocket compass on the turnpike hike, and you will not need your jackknife with which to eat at the boarding house or hotel, but we Boy Scouts are the real thing, we go to hotels and boarding houses and picnics when we must, but not when we can find real adventure in wilder places. We shout:

There is life in the roar of plunging streams,
There is joy in the campfire's blaze at night;
Hark! the elk bugles, the panther screams!
And the shaggy bison growl and fight.
Let your throbbing heart surge and bound,
List to the whoop of the painted Reds;
Pass the flapjacks merrily around
As the gray wolf howls in the river beds.
We weary of our cushions of rest,
God of our Fathers, give back our West;
What care we for luxury and ease?
Darn the tall houses, give us tall trees!

Bah! these verses have not the swing that the writer likes, but he did not have time to polish them up and the sentiment is all right. Maybe prose will express the idea better, so let us stop and listen to the whistle of the marmots in the slide rock, the hooting of the barred owl, the bugling of the elk, the yap, yap, yap of the coyote, the wild laugh of the loon, the dismal howl of the timber wolf, the grunting of the bull moose, the roaring of the torrent and the crashing thunder of the avalanche!

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Pack Wisdom

Belmore Browne

IF you have been wise enough to secure a good pack harness then comes the problem of how to arrange your load, and this difficulty can only be suggested in a broad way. Experience, and lots of it, is a necessity in mastering this branch of camp lore. The general rule is that the pack must rest comparatively high, and that it must never be round in shape. An important suggestion to the beginner is to form the habit of wrapping each separate article loosely. The tenderfoot invariably ties up a partly filled sugar or salt bag so tightly that it resembles a miniature cannon ball that will move about in his pack and bore holes in his back. By tying a partly filled sack as close to the opening as possible the sack can be spread out flat or stretched lengthwise so that it will fit the back and stay where it is put. What is true of the individual article is true of the whole. A horse-pack should be as firm and as tightly lashed as possible, but there should be a little bend and looseness in a man-pack so that it will conform to the packer's back and in this way distribute its weight over a greater surface. Needless to say the softer articles, such as blankets and tents, should be so placed that they form a soft cushion against the packer's back.

If it takes time and experience to learn to arrange a good pack, it takes groans and backaches to learn to carry it. There is no branch of the outdoor life that requires more downright hard work. I would gladly give a helping hand to every scout, but in this one respect the scout must stand on his own feet. There is no man so big or strong that he can carry a heavy pack without suffering physical pain. The only thing that you can do is to make sure that your load is well made up and then grit your teeth and carry it. After a while your muscles will harden and little by little you will get the hang of it, and then will come the feeling of pride in a hard task well done.

As the necessity for carrying the heavy load seldom arises on scout hikes, the scout seldom gives much thought to the problem of how to lighten his load or make it carry more comfortably. I seldom see a body of scouts on a hike without noticing many mistakes in their method of carrying equipment. The commonest mistakes usually consist of carrying packs too low; and hanging articles from the belt. The fact that a scout's pack may be so light that he can carry it without inconvenience when it is badly arranged is no excuse for its being badly arranged for strength that is wasted in the morning may be worth its weight in gold in the afternoon.

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Tenting

By J. Sterling Bird

HOW do you two boys intend spending your vacation this year?

"We wrote Uncle Jim offering to work for him on the farm, and last night we had a letter saying he would be only too glad to have us come the moment school closes."

Fine. How big is his farm?

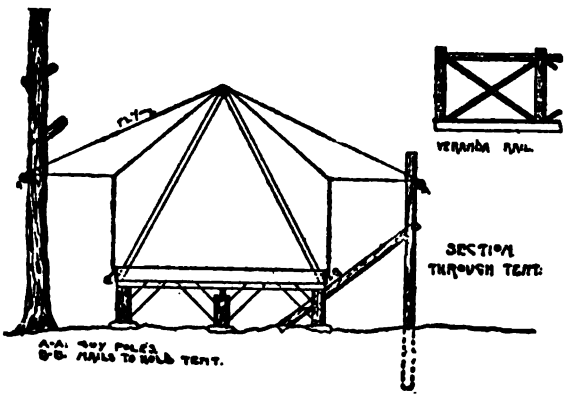
"Over a hundred and fifty acres, running right down to the shore of Limerock Lake."

Is that so? Then why not take along your 8 foot by 10 tent to live in so as to have a little camping as well as farming during the summer? Only a few spare hours would be required to build a permanent platform where you could be dry and comfortable until snowflakes were flying, and it would be good for many years to come. Then again, if you got lazy Uncle Jim could fire you and live there himself. He'll probably almost want to, anyway.

"If we ever had a camp like that, you bet we would work enough harder to be engaged for another year. Tell us about making a platform."

Well, before you begin the platform, you should select a location to fill certain requirements. The ground must have considerable slope for good drainage. The early morning sun should strike directly on the tent, to drive out all dampness, with shade later to keep the tent cool through the heat of the day, and enough trees to break the big storms that are sure to come. In order to be comfortable at all times these conditions must be adhered to. If a spot can be found with a row of trees parallel to, and a few feet from each side of the platform, to which the guy poles may be spiked, so much the better, and you will want to be near the water.

As the catalogue size of a tent is only approximate, one side and the rear must be stretched tight to take accurate measurements in order that the platform may be built to fit exactly. For a tent 8 feet by 10 feet the sills and floor beams need be no larger than ordinary 2-inch by 4-inch hemlock. Above that size 2-inch by 6-inch sills will be required. The sills are to be strongly fastened with 20d. nails to form a rectangle two inches smaller each way than the tent, then squared up and held square by two boards nailed on diagonally. This is the sill for tent floor only, as the veranda is left until this part is completed.



At each point corresponding with A-A on floor plan, place a good-sized flat stone set down so ly on the soil, wit all sod

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and moss dug away. If the grade is quite steep the rear sill can be leveled directly on the stones, provided it is clear from the ground throughout its entire length. Where the slope is gradual, short posts must be used, of not less than six inches diameter. Should you be without a spirit level a brimming cup of water will give fairly accurate results. When the rear sill is in position, level the front to it, and fasten to posts with 20d. nails, then brace posts as shown on the sectional drawing.

When the floor beams and girder are securely nailed in place, put in and brace the remaining posts, and lay your flooring.

"What kind of floor boards are best?"

Wooden ones by all means, Bill. Any kind will do so long as they are wooden boards. In this case I would suggest unmatched, undressed hemlock as they will last longest and be cheapest. Saw the flooring flush with sill, nail on a six-inch wall board all around so it will cover edges of flooring, lap the sill one inch, and your platform proper will be finished ready for the tent.

Instead of using the ordinary type of tent pole, erect a horselike affair, such as is shown in section through tent. With the ridge at such height, the bottom of tent laps the wall board two inches. Toe nail the legs to the flooring. This not only makes a very rigid affair, but allows nailing a board across the two rear legs for clothes hooks, shelves, etc., and leaves a clear opening in front. Spruce with the bark peeled makes the best poles.

The bottom of the tent is fastened to the wall boards by driving nails through grommets or loops.

Where trees are not available, the guy poles must be spiked to posts set in the ground and braced under the platform as drawn. Wherever two poles are spiked together, the top one must be flattened with the axe to give a good bearing. These poles should not be barked, as the ropes would have a tendency to slip. They should be spiked at such height that the guyropes will pull horizontally when led over the top. Draw them up snug, but not too tight, or something will give way when the rain causes shrinkage. The fly will be carried on the same ridge, and fastened to the same guy poles as the tent. When that is up you will be ready to move in.

"You forgot all about the veranda."

No, George, for that can be added on any old time. Just drop it four inches lower than the tent floor. If it is quite high on the ground build a railing during your spare moments.

You should be able to sleep in your new camp the first night after your material arrives. A little box stove will keep the tent dry and warm whenever the weather is bad, and you can fix up all sorts of handy things to add to your comfort and pleasure.

A tent pitched in this manner cannot blow down in anything less than a hurricane, there are no pegs to pull out, and as the poles are left in position, camp can be made in a half hour another year.

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The Scout Camp Fire

By L. B. Robbins

THE innocent person who carelessly drops a smoldering match in the woods as he passes along is often the cause of one of the destructive forest fires which rage each dry season and burn thousands, yes, millions, of cords of wood. Yet, give that same person a half-dozen matches and a wheelbarrow load of firewood and the chances are he will have to beg for more matches before he can start a fire outdoors in proper fashion. The chances are his "fire" will start with a quick blaze, flicker and die out in a choking smudge.

Building a campfire means a great deal more than grabbing up a handful of dead leaves and a few twigs, piling them up in a scraggly heap and setting fire to them.

Instead, it means constructing a fire for its intended purpose, building it properly, and tending to it after it has once started. It takes only a glance at a camper's fire to determine the kind of a woodsman he is.

Scouts are supposed to be versed in the art of woodcraft and many of them indeed are well schooled in its essentials with the exception of the *campfire!* That is usually the stumbling block. It is not simply a fair weather proposition. It means building a serviceable fire in summer, or winter, spring or fall, blow high, blow low, in rain, sleet, snow or hail. Without matches; perhaps with no dry tinder or kindlings he must have a fire to warm himself or cook his food.

I have taken the liberty of consulting the works of both George R. Sears, better known as "Nessmuck," and that lover of the woods, Horace Kephart, for a great deal of the following data.

While one kind of a fire *can* accomplish both things it is well to know at the start that there are really two kinds of fires: the campfire to furnish light and heat and the cooking fire to prepare our food.

Kephart divides the campfire into three kinds: The Hunter's fire, the Trapper's fire and the Indian's fire.

The Hunter's fire affords quick heat and a good all-night fire when the weather is not too severe. Two green logs about six feet long should be laid side by side about fifteen inches apart at one end and half the distance at the other.

Lay rows of small sticks across the middle of these logs and lay the tinder on them. Lay a heavier green stick at each end of the tinder and place dry sticks on them parallel to the logs. Build this up cob-house style of short dry wood. When lighted, the upper wood will soon burn through and will drop to the ground between the logs and set the inner sides to blazing. Before retiring, pile on plenty of fresh wood and in the morning there will be a nice bed of hot coals to start the breakfast fire going.

The Trapper's fire is intended for a fixed fire in more severe weather and is built to shed its heat into a lean-to or shanty tent. Either find a boulder or rocky ledge or build a wall of rocks about six feet in front of the shelter. Slant the wall backwards. If no rocks can be found drive two stakes in the ground and lean three or four green logs against them and set two short

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logs on the ground in front of them to serve as andirons. Plaster mud or clay between the logs and around the andirons; in fact any part of the structure that is liable to be attacked by fire.

The fire proper is built in the usual manner upon the andirons. Such a fire reflects the heat forward and carries the smoke upwards. It also serves as a windbreak to the camp. This fire is not good for cooking purposes but is intended solely for warmth.

The Indian's Fire is for "one night stands" or where the camper has few cutting tools to prepare firewood.

Cut several hardwood saplings and lay three or four of them on the ground, butts together radiating them like the spokes of a wheel. Build a small, hot fire on and around this center and place the butts of other saplings on this. As fast as the wood burns away, shove the sticks in towards the center, keeping them close together. The fire continues to burn as long as the fuel lasts. A windbreak helps to throw the heat back and if the camper lies down between it and the fire he soon knows what solid comfort means.

Upon the Cooking fire depends a good portion of the pleasure of the campers. Nothing is so disconcerting as to eat smoky food or rations half done due to poorly constructed cooking apparatus. The Indian's fire can be used in an emergency but an outdoor range is the proper thing for a fixed camp. It is made similar to the Hunter's fire.

Cut two green logs about six feet long and eight inches thick and lay them side by side; about three inches apart at one end and eight to ten inches apart at the other. Flatten the top and inside faces with the ax. Drive a forked stake in the ground, near each end of the logs, and about four feet high. Lay a cross stick in the forks to suspend the kettle hooks from. Kettle hooks are made by cutting several green forks, driving a nail in one of the small ends and inverting the crotches over the cross stick. Pots and kettles can then be hung from the nails. When the fire dies down, different sized dishes can be set along the logs to simmer. Build a small hot fire of bark and hard sticks from end to end of the range. A shallow trench will serve the purpose of the logs where timber is scarce. Leave one end shallower to allow for draught.

Notwithstanding the fact that the scout may be well supplied with portable grates, ovens, etc., he may get caught out sometime without these utensils and then comes the time when he will want to know how to get along with the materials Mother Nature offers. In a fixed camp an oven is practically a necessity and in lieu of a patent one the following will be found to bake with the "best on 'em."

Select a steep knoll or clay bank nearby and cut the front down vertically. About four feet back from the front drive down a large stake about five or six inches in diameter to a level representing the bottom level of the oven. Then draw the stake out carefully leaving a hole for the flue. When this is done, start at the vertical face and dig back into the bank until you reach the flue. Keep the entrance small but enlarge as you dig back thus forming a sort of arch. Smooth out well and then wet the whole interior and build a small fire which will gradually dry and bake it into shape. Find a flat rock with which you can cover up the entrance as needed to reduce the draught.

When you wish to bake in this oven build a good fire in it of hardwood split sticks letting it burn hard for an hour or two. Rake out the embers; lay the dough on green leaves or on the bare floor and close the door with the stone.

In a case where you can find no knoll

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build a frame of green sticks like a lot of croquet wickets placed close together and weave other sticks across them like a thatched roof. Set up a round stick at the rear for a chimney form. Then plaster wet clay or mud over the entire structure except the door and let dry in the sun a couple of days. Then build a small fire and let simmer along slowly until the entire oven is hardened sufficiently. Fill up all cracks and openings which have formed; plaster over again thinly and give a final firing.

Now a word regarding fires in general.

First comes the tinder. This is the foundation of any fire and should be selected with care. Dry toadstools, dead wood found in trees and stumps, dry moss and willow catkins and dry puff-balls are good natural tinder. Perfectly dry grass can be used also as well as dried dung and leaves. These things will not burn with much of a flame but serve to hold fire until the more inflammable kindlings can be fired from them.

Kindlings can be found in dead wood, dry bark, pine knots, shavings, wood chips, dry laurel twigs, or cloths soaked in grease.

Practically every kind of wood will burn but some with much more life than others. Therefore it is well for the scout to know that soft woods furnish the kindling while hard woods give body to the fire and furnish heat. Many pages might be written on hard and soft woods but that is hardly necessary in this article as every troop is confined to a small area and the members are probably familiar with the woods in their immediate region.

A good general rule for building a fire is:

First lay two green sticks on the ground as a foundation. This allows *air* to circulate underneath and is of prime importance. Across these two sticks lay a course of dry kindlings. Then lay your tinder on these. Put two other cross sticks over the tinder and then build up a "cob-house" of wood, increasing the size of the sticks as you build up. The same rule applies in building all fires: a space for air underneath, then tinder, kindling and lastly the layers of firewood.

In wet or windy weather build a windbreak to shelter the fire.

If out of matches and fire making materials you may be able to strike sparks from flint or quartz by striking them with the knife or other steel implement. Use the rays of the sun through your camera lens, field-glass or telescope lens. Tinder may be ignited by using a watch crystal half filled with water in place of a better lens.

Last but not least. When leaving a fire be sure and trench it and see that it is entirely out. Don't neglect that. It may save thousands of feet of valuable timber from being destroyed. That is a scout's duty.

A SCOUT IS TRUSTWORTHY

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Overnight Hike Comfort

By Ladd Plumley

IF one contemplates a tour that lies through the wilderness, and accommodations for the night are not to be had under roofs along the way, one must carry his *blanket*. The blanket should be selected with lightness and warmth in view. The army blankets are fair, but softer, lighter, warmer ones may be had. Blankets should be of generous dimensions. A large double blanket should not exceed eight pounds in weight, and single blankets should weigh half as much. The Hudson Bay blankets are justly famous.

A blanket enveloped in a wind-proof *blanket cloth* is very much warmer than if not so shielded. Herein lies the virtue of a sleeping bag. Similarly, a tent—particularly a small one, for one or two men—keeps out wind and retains warm air. With the use of a tent, the weight of blankets may be less. The blanket cloth serves both to keep the wind from penetrating the blanket and also to keep the blanket dry. It prevents penetration of moisture from the ground; and, if one is not otherwise protected, it shields one from dew and from light rain. The blanket cloth, too, must be of the least weight consistent with service. Because of weight, rubber blankets and oiled ponchos are out of the question. Better light oilcloth, or, better still, the material called "balloon silk" (really finely woven, long-fiber cotton) filled with water-proofing substance. "Tanalite" is the trade name for a waterproof material of this sort of a dark brown color. A tarpaulin seven feet square made of tanalite is, all things considered, the most serviceable blanket cloth. With blanket and tarpaulin, one's pack should not exceed 25–30 pounds in weight.

Blanket pins are worth carrying. By using them one may keep himself snug, nearly as well as in a sleeping bag.

A small cotton bag, useful in a pack, may be stuffed with clothing and serve as a pillow.

A *tent* will be carried when the route lies through unsettled country. In a sparsely settled region, one will run the risk of heavy rain for a night or two, rather than bother with a tent; but in the wilderness a tent is a necessity, for even such a tarpaulin as has been described as a suitable blanket cover, is not perfectly watertight.

In summer, when there is no rain, one should sleep under the open sky; he should choose as his sleeping place an exposed ridge, high and dry. In such a situation he will suffer least annoyance from mosquitoes, and, if the night be cool, he will be warmer than in the valley. Seldom in temperate climates is the night too warm for sleeping out of doors; but even on such a night the air on the hilltop is fresher. If it be windy, a wind-break may be made of boughs or of cornstalks (on a cool night in autumn a cornshock may be made into a fairly comfortable shelter). In case the evening threatens rain, one may well seek a barn for protection; if one is in the wilderness, he will search out an overhanging rock, or build a lean-to of bark or boughs. Newspaper is a good heat insulator, and

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newspapers spread on the ground where one is to lie make the bed a warmer, drier one. Newspaper will protect one's blanket from dew. Be careful when lying down to see that shoes and clothing are under cover. If the night proves to be colder than one has anticipated and one's blanket is insufficient (or if, on another tour, the days are so hot that walking ceases to be a pleasure—though they have to be *very* hot for that), it may be expedient, at a pinch, to walk by night and rest by day.

Food should be selected to save weight, so far as is consistent with nutriment. Rolled oats are excellent; so also is soup powder (put up in "sausage" form, imitating the famous German *erbswurst*), and dried fruits and vegetables, powdered eggs, and powdered milk. The value of pemmican is known. All these articles may be obtained at groceries and at sportsmen's stores. Seldom, however, will one wander so far as to be for many days beyond the possibility of buying food of more familiar form. Shelled nuts, raisins, dried fruits, malted milk tablets, and lime juice tablets are good to carry on an all-day excursion.

Recording Natural History with Plaster of Paris

CAN you tell from a scratch in the mud and the fluff of a feather what sort of a woodland tragedy it was that took place at your feet? Every imprint upon Nature's path is the result of some disturbance or other. Can you decipher the riddle and tell of its origin?

Tracking is the most exciting and intensely interesting form of trail work. Making the acquaintance of the wild animals, studying their habits and customs, recording their tracks for further study and permanent record afford a rare pleasure and a delightful pastime.

To make a permanent record of tracks is inexpensive and requires little skill and only the simplest equipment. Two or three pounds of plaster of Paris at a cost of about five cents a pound, some water, a tin can, a small wooden frame or iron band and a small stick pointed at one end and flattened at the other are all the materials needed.

When the clearly impressed track of some animal has been located, it should be cleared with the aid of the stick, of any particles of dirt that may have fallen into it. Then place the frame or whoop over the track to prevent the plaster from running. A frame guarantees uniformity of size of casts. If a place is found where animals frequently pass, the mud and sand may be smoothed off by dragging a board over it, thus increasing the chances of getting good tracks.

To mix the plaster shake the powder into water, adding as fast as it settles beneath the surface, until a small hill shows. Then stir, until you have a creamy mixture; after the plaster begins to thicken, pour carefully into the track while still thin enough to run into all the cracks and crevices. By adding salt to the mixture the process of setting can be quickened; glue will retard the action, while alum hardens the cast.

The cast usually will set in a short time and, if necessary, can be removed as soon as the top can be scratched with the finger nail. It is best to leave it in position for several hours.

Do not attempt to clean the cast as soon as it is lifted. In a day or so, the dirt may be removed with a soft brush. To remove mud, immerse the cast in a dish of water, and wash off carefully with a soft cloth.

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Troubles à la Carte

By William Ashman Palmer—Age 16

DO you remember the first night you slept under canvas? The thousand and one noises you never heard before, ringing in your ears? Feeling as if you were in Africa the first half of the night and the North Pole the second.

Back in the dim and distant past—four and a half years ago, to be exact—I took my first overnight hike as a tenderfoot. It was a blazing hot day; the kind that puts ambition into the dust to seek a passage through your collar and sift into your shoes to blister your feet. There were about ten of us in the crowd, and when we started no one's blanket roll weighed over six or seven pounds; but those packs thrived on the warm country air and took on weight with every mile.

When we reached the camping-ground it would have been murder to put any of us tenderfeet up against a feather. But ten minutes stretched out on the pine needles, looking up into the cool green of the giant trees, is enough tonic to put activity in the most hopeless invalid, and we were soon out with our axes, rustling a pile of wood.

We started a fire in case anybody hadn't had enough heat during the day, and incidentally to get some embers to bake potatoes. By the time the wood was crackling merrily the sun, now that it could no longer reach us in the shade of the woods, was setting behind the mountains opposite, and looked like a great red apple.

Rod and I plunged into the woods in search of a suitable place to pitch our dog tent. About fifty yards from the fire we came upon an open space that sloped gently to a marshy stretch. Here we decided to cast our fortunes and dumped our joint tent upon the ground. We were tenderfeet in those days, and had never before slept, or rather tried to sleep, beside a Jersey swamp. The mosquitoes come from all over the country to our state, where the air seems peculiarly beneficial to them. True we were above the marshy ground, but—well, just try picking out a place like that some time. The scoutmaster saw but held his peace, thinking, I suppose, that experience is the best teacher.

We had a homemade tent that was divided into two parts so that each fellow could carry half. You tied it in the middle and prayed that it wouldn't rain. Half a broomstick held up each end, and from the tops of these, two ropes extended to the ground about five feet in front and back of the tent. In this way it was held upright without the cross-piece along the top. When the sides were pulled taut and the triangular flaps at one end stretched out, two scouts, an ax, and a box of matches could squeeze in, provided the scouts wriggled in sideways.

The tent secured, Rod and I sauntered back to the fire where our fellow troop members were assembled, and commenced to tell them how much more comfortable we were going to be in our private tent than they were in the large lean-to where they intended to spend the night.

We had a hearty but eventless dinner. After we had finished, every one told ghost

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stories in an effort to make every one else show that they felt as jumpy as the yarn spinner himself felt inwardly. The galaxy of stories were topped off by an exceedingly creepy one of the scoutmaster's, wherein the ghost had a very ungracious habit of visiting campers.

"Bet you're afraid to go to your tent," cried one of the "leantoers." "That ghost'll run off with you out there alone, sure as shooting."

The shadows didn't look especially inviting, for a fact, but Rod and I declared that ghosts were our specialty, and shouting good night, repaired quickly into the woods in the direction of our lonely bivouac. By the carbide camp light, that acted as a beacon to the swamp mosquitoes —though we didn't notice any then—we finally managed to roll ourselves in our blankets without pulling out more than two of the tent pegs, and extinguishing the light, we settled ourselves for a long summer's nap.

For the first half hour we tried to believe that the frogs in the swamp weren't keeping us awake. But finally their croaking—which sounds like the high notes of a violin made with a bow that is crying for rosin—was too much for Rod, who turned suddenly with an angry exclamation, and two more pegs came up. I feigned sleep and he settled down again with a sigh. Fifteen minutes later the advance guard of the mosquito host lit upon my left ear. I wrenched my hand from under the blanket, and came down hard upon the insect, also my ear. I also sat up as far as the side of the tent would permit, and a little further, for several more pegs parted company with the ground.

"Well, we might as well put the pegs in again before the whole thing comes down," I said. The crawling out process loosed most of the remaining pegs.

When we had once more enmeshed ourselves in our blankets, we were struck by the extreme heat of the night and more mosquitoes. The net result was: blankets loosened, five pegs pulled out again, and ten fewer mosquitoes in New Jersey.

But even the worst of trials must some time come to an end. At about three in the morning a cool breeze chased the marauders back to their own haunts and forced us to seek our blankets again. But it was out of the frying pan into the ice water. We got colder and colder and the dew became icier and icier. We burst out of our tent finally, leaving it lying on the ground in a surprised mass, and executed a war-dance to restore feeling to our numbed limbs.

When the sun came up we felt like the last roses of summer after the first snow storm, but derived a small amount of pleasure from waking the comfortable sleepers in the lean-to at half-past five.

But after the camp breakfast we threw off the effects of the night and faced the day with a smile. And when I remembered that breakfast, the enchanting odor of frying bacon, the cheerful bubbling of browning pancakes, and aroma of boiling cocoa, then, indeed, I joyfully hailed the prospect of the next hike.

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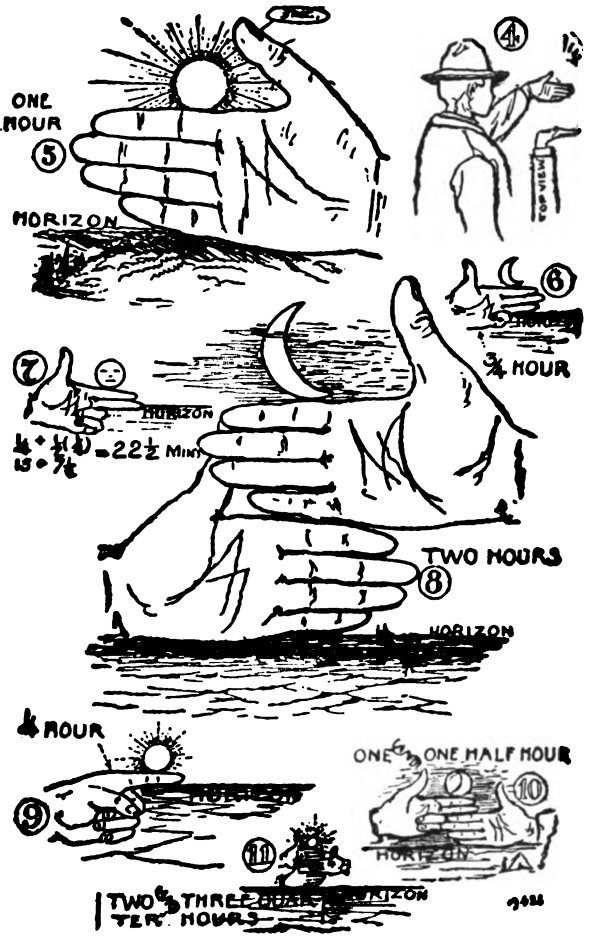
The Glad Hand

By Dan Beard

Illustrated by the Author

IN the good old days—we say good old days because you are used to hearing it, and because it sounds sort of good to me when we say it—well, in those days which we call good because they always seem good to us, people told time by the sun and moon and stars. They would step to the door and see how high the sun appeared above the horizon and would tell you within a few minutes of the correct time. The trappers, the hunters, the pioneers, and the backwoodsmen had no clocks or watches, although Davy Crockett did carry a little brass sun dial on a leather watch fob, but the funny part about it is there was no watch on the end of the fob, but there was a compass below the sun dial and with these two instruments one could tell the time of day, although I doubt if Davy needed them; the ancient strap and dial was a present to the great hunter. I saw this contrivance in the mountains of East Tennessee, and tried to buy it, but did not have money enough.



The old-fashioned people also measured distance by sight, sometimes used their fingers and thumbs for that purpose, but this was not often considered necessary because so accustomed were they to judging distances by the eye that by that means they could estimate close enough for all practical purposes.

The way to measure distance by the fingers and hands is about the same as artists to-day measure the proportions of the object they are sketching — the artist uses his pencil or brush, and his thumbnail to measure or mark the dimensions. But you will note that in Fig. 1 the scout is using his fingers

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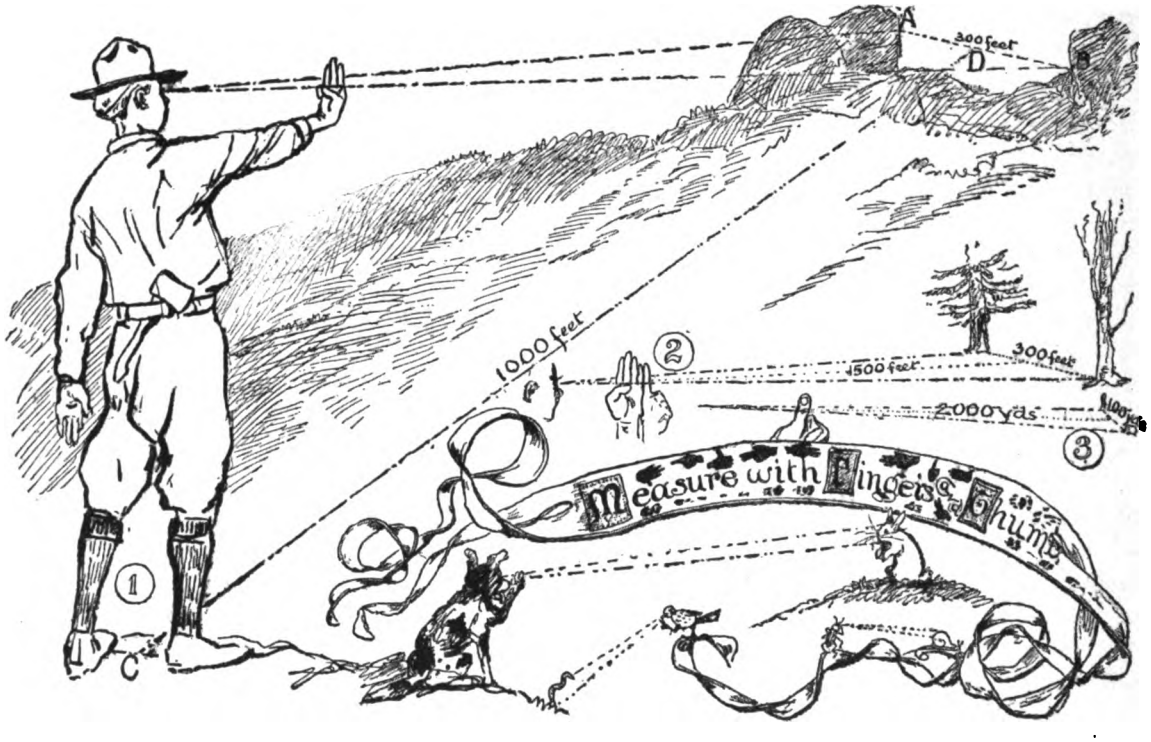
and eye only. Of course, you use but one eye, closing the other, then you hold your hand, as near as possible, at right angles with your wrist and your arm extended full length. In that position at a thousand feet from the space to be measured your three fingers will cut off, cover or hide, a space three hundred feet; that is, if it is a thousand feet from C to D, it will be three hundred feet from A to B. In other words your three fingers will cover the whole space between A and B, in the same manner six fingers alongside of each other (Fig. 2) at fifteen feet will cover the space of three hundred feet, or if the thumb is held up perpendicularly at an arm's length in front of the eye the observer standing at a distance or two hundred yards (Fig. 3) from the space or object to be measured, the thumb will cover one hundred yards.

In Rhode Island, about a century ago, there was an old lady who lived on the community; that is, she would go around visiting at meal times and was always invited to breakfast, dinner or supper, as the occasion suggested. One time, while visiting the family of one of the signers of the Declaration of Independence, this same old lady became a little worried when she saw no sign of the evening meal being prepared, because she had lunched with an economical family, consequently food was uppermost in her mind. Excusing herself she stepped to the door with the remark, "I want to see how high the *tea kettle is.*" This was a bad break and it caused great amusement. What she meant to say was, "I want to see how high the sun is," because in those days, in spite of the legends to the contrary, every house was *not* supplied with a grandfather's clock and most people told time by the sun; to see how high the sun stood was to see the time of day.

Lieutenant Blair of the Royal Naval



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Reserve is the one to whom we are now indebted for calling to our mind the old-fashioned way of measuring time with one's hands. The writer has used this method both as a boy and a man, and has found it accurate enough for all practical purposes.

Suppose you are on a hike and want to know when to make camp—let us suppose that you will need at least one hour to get camp ready before dark. It does not make any difference whether you are on the plains, among the hills, or on the ocean, the sun sets when it goes below the horizon; but as far as you and the light are concerned, the sun sets when it goes below the hill or the mountain; therefore you want to know how long it will before it drops behind the real horizon or the apparent horizon of the mountain or hill.

If you will hold your arm at full length in front of you and turn your hand as near as may be at right angles with your arm (Fig. 4), each one of your fingers will represent fifteen minutes or a quarter of an hour; therefore when the sun (Fig. 5) is four fingers above the horizon, it is time for you to stop and get your camp ready; in other words, you have just one hour to get your camp ready before dusk. By the same method of measurement if the moon is three fingers above the horizon (Fig. 6), it will set in three-quarters of an hour; if the moon is one and a half fingers above the horizon it will set in twenty-two and one-half minutes. One finger is one-quarter of an hour, or fifteen minutes, then one-half finger is one-half of fifteen minutes, or seven and a half minutes; that is, the moon will set in fifteen minutes plus seven and a half minutes, or twenty-two and one-half minutes (Fig. 7). But if you can get eight fingers below the lower horn of the moon and the horizon, it will be two hours before the moon dips below the edge of the world (Fig. 8).

Of course, by this measurement one finger (Fig. 9) means a quarter of an hour, and six fingers mean an hour and a half (Fig. 10), but if the sun is real high and you hold your right hand up with four fingers, and on top of that there is still room for three fingers more, that would give you an hour and three-quarters, but if you have first held your left hand on the horizon then your right hand on top of that, and found there is still space between the right hand and the sun, then you remove your left hand from the bottom and put three fingers (Fig. 11) over the right hand. Of course that will be two hands and three-quarters of a hand, or two hours and three-quarters above the horizon.

A big man has a big hand and a long arm, and a little fellow has a little hand and a short arm, so when the little fellow holds his little hand a short distance from his eyes it amounts to about the same as when a big man holds his big hand a long distance from his eye. In other words, this method of measuring the height of the sun and the moon is adjusted by nature, so that it is quite accurate enough for all.

In this age of improvements, where science has done everything for us, we are apt to forget what nature has done. If we do forget this important fact our own development will suffer, for there is no doubt that a man or boy who can tell the time and measure distance with his hands and eye, is better equipped for life than the poor dub who is lost without a watch, a compass and astronomical instruments, so let all sing

Weep not, thou tenderfoot fair,
Weep not for clocks or pie;
There is no pastry in the air
Nor doughnuts in the sky.

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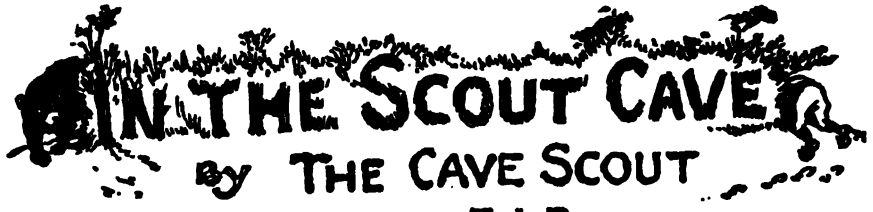

Oh, I sat in my cave on the side of the hill;
A fellow came along, said "Hello Bill!"
He was crazy as a bug, you can plainly see,
When you see my initials, which are F. J. P.

"WELL, who in blazes *are* you, Cave Scout!"

Oh, hello fellows! Come in! Come in! Didn't hear you coming until you were right on top of me.

"But who *are* you?"

Sh-h-h, come here, old pal, and I'll whisper in your ear. I dare not tell you for I'd hate to disappoint you. If you heard my name you'd say: "Huh! Never heard of that guy before!" Now don't tell this to a soul, for a certain well-known person might hear of it and I wouldn't blame him for getting sore, but the other day a scout came along and said: "Get out of that Cave, Theodore Roosevelt, Jr.; you're dis-s-s-covered." Say, that scout is loonier than I am. Oh, well, never mind my name. Maybe I'm keeping it quiet to keep out of jail.

"Well, then, tell me how to get rich."

Just a minute please. Operator, you've given this party the wrong number. He wants Rockefeller.

"Oh, quit your kidding, Cave Scout, I'm serious."

Rich? Well, what kind of riches, do you want? Riches, witches, stitches, hitches—Hey! Open the door! Give me air! One of those poetry fits is coming on and nothing can stop it. Here goes!

RICHES

"Give me a rod, a reel, a gun,
Grub and blankets for my pack,
I'll hit for timber on the run—
Don't expect me till I'm back;
Far, far from man, where mountain stream,
In headlong hurry pitches,
Where rainbow trout in flashes gleam,
There I will find my riches.

"All right, old Sourdough, hit the grit,
You're welcome to such pleasure,
But as for me I'll have my bit,
In quite a different measure;
Give me a roaring, snorting car,
That climbs trees and leaps ditches,
To which no distance seems too far,
Then I'll say I have riches."

"Plain cash will suit me pretty fine,
Just silver, gold and paper
With double XX's in a line
Is quite the proper caper;
A wad as big as Dempsey's arm,
A roll that sags my britches,
Cash never fails to work a charm,
And that's what I call riches!"

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Such things are fine, I must admit,
Both snorting cars and fishin'
Yet I will freely tell you it
Is not for that I'm wishin';
Real friends who never fail nor swerve,
A strong, clean body which is
More than gold—a chance to serve—
These I consider riches.

Whew! That's a corker! Hope none of you fellows never get that way!

Riches? Just for a starter let's ask this question: Who is the richest man who ever lived in America?

"Oh, Rockefeller, I suppose."

All right, let's talk things over for awhile and then we'll ask the question again.

Funny, isn't it, when there are so many different kinds of riches in the world that one of the least important of them all should get the most attention!

Take Mr. Rockefeller, for instance. He probably has more money than any man on earth. And yet I'll bet that if we had Mr. Rockefeller right here in the Cave where we could talk to him, he would tell us that he considers his greatest achievement the development of an industry which has brought so many blessings and such great enjoyment to mankind. I'll bet he'd never mention money.

Some of you seem kind of skeptical. Well, then, what men in America had the most money at the time of the Revolutionary War? What's that? You don't know? Well, neither do I, and I don't care.

"Hey, Cave Scout! Don't forget Robert Morris!"

Good for you, Scout. I wondered if anybody would pick me up on that. Robert Morris had money. But why do you remember him? Not simply because he had money, but because he gave it to his country. He was later imprisoned for debt and died a bankrupt. But how about the rich men who hung onto their money and did no particular good with it? Does anybody remember their names? But everybody knows the names of men of that time who possessed other kinds of wealth—Benjamin Franklin who was rich in diplomacy, Patrick Henry who was rich in patriotism, George Washington who was rich in military genius and statecraft.

Try again. Who were the rich men in the country in dollars and cents in the Civil War period? Stumped again, aren't we. But every boy here can name dozens of men of that period who possessed other riches of a more lasting kind.

Daniel Boone was one of the wealthiest men this country ever produced.

"But Cave Scout, I didn't know he had any money."

Neither do I. But I do know he possessed probably the greatest fortune in adventure of any American. He will never be forgotten. Simply because he had adventure? Not at all, but because he was one of the most important factors in opening up the great Middle West to settlement.

Seems as though people are remembered not because they had wealth, no matter what kind it was, but because they used it for some good purpose.

"Well, it's kind of tough for us boys, Cave Scout. No more West to subdue, and it looks as though wars are going out of style."

Why, boys alive, can't we realize that this world is just one vast storehouse of treasure! We can go to any library and help ourselves to the very best in literature and science. For centuries noble men and women have been at work recording the very best things of every age and handing them down for our present enjoyment—musicians, painters, sculptors, scientists, philosophers, theologians, poets.

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Add to that the wonderful development of science in the past fifty years, all recorded and classified for our use. Why the average boy to-day possesses knowledge far in excess of the wildest dreams of the sages of old. Gosh, it doesn't seem as though there is any reason for a boy to remain poor. Just pick the kind of wealth we want and help ourselves. And there are more new fields to explore and more new discoveries to be made than ever before.

"Sounds all right, Cave Scout, but I can't get it out of my head that money—the real stuff—is the necessary thing."

All right, then, take your money, gold and silver and notes, and go out into the wilderness with it. Try to catch fish with it, try to shoot game with it and you'll find out whether or not it is the necessary thing.

Of course, money is all right—it is necessary as a convenience in civilized life. I wish I had scads of it—there are so many ways I could use it to do good turns. And thousands of big-hearted men who have money are using their wealth in splendid ways. But we don't have to have money to be wealthy. I haven't enough money to afford a Tin Lizzie, but I have wealth, and hope, and every privilege and opportunity that belongs to an American citizen. I have a job to work at that gives me a chance to help others. I have all the great outdoors to play in. I'm *rich*.

And of this I am absolutely certain, that of all the various kinds of wealth men may possess, the greatest of all and the noblest of all is service.

Who is the richest man who ever lived in America?

"Mr. Cave Scout, I say Abraham Lincoln."

—The Cave Scout.

Our Records Will Stick

By F. J. P.

We can hide from the sun and with balm relieve pain,
Escape from a crowd and take refuge from rain,
Beat cowardly impulse by learning to fight,
With heat defeat cold and cheat darkness with light.
But there's one thing I know that we cannot evade
Though made by ourselves—the records we've made,
By the acts we've committed thus far on life's way,
Just the things—good and bad—we have done day by day;
There can be no escaping by hook, crook or trick;
We can dodge, squirm or run, but our records will stick.

By some cruel action we may be appalled,
But an act once committed can not be recalled,
For time is no dawdler, it moves grimly on,
With no heed for humans, and what's done is done.
It is true, I'll admit, we might make some amends,
But the record remains in the hearts of our friends,
And whate'er the regret and whatever the pain,
Try as we will we can't wash out the stain.
We just have to stand it—there's no use to kick
For in spite of all efforts our records will stick.

But it's well to remember the adage which says,
"It's a mighty poor rule that won't work both ways."
So we ought to be thankful and ought to be glad
That we have the same chance for good records as bad.
Bright, rollicky records, wholehearted and gay,
Scattering sunshine and smiles on the way.
Records that give us no cause for amends,
Records of unselfish service for friends,
Records of clean lives as square as a brick,
Records like that we'll be glad to have stick.

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Scout Ideals

By John D. Rockefeller, Jr.

Illustrated with Photographs

I AM interested in the Boy Scout Movement because I believe in boys. I have five boys of my own. The boys of to-day will be the men of to-morrow. The problems of to-morrow will be solved, not by us but by our boys.

A well-trained, industrious, high-minded son is the greatest heritage any father can leave. Yet we fathers are often putting business, politics, social work, almost anything else, first and giving our boys only the leavings of our time.

Returning home quite unexpectedly from college one day, a son was asked by his father to join him for a game of golf. After dining together the father suggested that they spend the evening at the theater. When they parted for the night, the son said: "You are a good sort, Father, why haven't we gotten acquainted before?"

I believe the Boy Scout Movement is a great and powerful influence in helping boys to come into their own. This it does by holding up fine ideals and inspiring boys to attain to them. You can lead boys, but you cannot drive them.

In a certain country school, it had grown to be the custom for the big boys to put out every new teacher shortly after his arrival. The latest man to fill the position was short of stature and lacking in physical strength. His opening remarks to the boys were something like this: "If you don't want me here as your teacher, boys, all you need to do is to tell me so and I will go away—you will not have to put me out. You all know Mr. Smith down in the city not far from here. He is the foremost business man of the place. His counsel is always sought in important business matters. His fellow citizens look to him as a leader when weighty civic questions come before them. He is the man of greatest influence and highest character in the community. If any of you boys want to grow up to be men like Mr. Smith, I can show you the way and help you to follow it. If you don't, you will have no trouble in getting rid of me." Under the leadership of that teacher more than one of those boys grew up to be a man like Mr. Smith.

What are the ideals that the Boy Scout Movement holds up to the boys? They are found in the Scout Oath and Scout Law.

On my honor. The boy of honor is trustworthy. He speaks and acts the truth, and is always to be relied upon. He is also loyal and stands by his friends.

A son of poor parents in a mill town in the South, whose mother took in washing for a living, was ashamed to be seen walking through the streets carrying home the work. One day it occurred to him that if his mother was not ashamed to do the washing, he ought not to be ashamed to deliver it. From that day on, his loyalty to his mother led him, instead of carrying the clothes through back streets, to find his way with his load along the main thoroughfares, proudly greeting rather than shamefacedly dodging his friends and companions, as he passed them.

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The boy of honor is chivalrous, courteous to women and girls; he shows reverence for things that are sacred and holy. He is likewise a good sportsman, taking his part in sport for sport's sake; just as good a loser as he is a winner.

ON MY HONOR, I WILL DO MY BEST. How the world needs those who will do their best! That do not seek to see how little work they can do in a day, but how much service they can render. Not restriction in the output of industry, but thrift in conserving the rewards of industry is their motto.

I was looking not long since at an exquisite piece of cabinet work, made a hundred or more years ago in England. The drawers opened as easily as if they had just been greased; the sliding top worked as though it were on ball-bearings; every detail had been executed not only with the highest skill but evidently with a sense of complete devotion on the part of the craftsman to the piece which he was creating. He had done his best, and the work of his hands remains to-day as an enduring monument and eloquent testimonial to that fact. Too often we think that success in life is obtainable only through the doing of great things. I believe profoundly in a definition of success which I heard many years ago. It is this: "Success consists in doing the common things of life uncommonly well." That is real success: It is within the reach of any one who is willing to do his best.

ON MY HONOR, I WILL DO MY BEST TO DO MY DUTY TO GOD AND MY COUNTRY. What countless illustrations of a high sense of duty the late war has given us!

On a beautiful summer's day, a large excursion steamer set out from a certain lake port with hundreds of pleasure-seekers crowding its deck. All of a sudden it was rumored that a fire had broken out in the hold. Although every effort was made to stop it, the fire gained headway, and at length its flames shot up into the deck. At the wheel was John Maynard, the pilot. "Head for the nearest shore, John Maynard," rang out the Captain's sharp order, for he realized that it was a race for life. Higher, higher mounted the flames, nearer and nearer came the shore. "If you can hold out five minutes longer, John Maynard, we will reach the shore," cried the Captain to the pilot, as the flames were spreading toward the pilot house. Now the heat had become almost insufferable. His left arm hung useless at his side, but with his right hand on the wheel, John Maynard still guided the ship. "A minute more and we are safe," shouted the Captain, and then there went up a great shout of thanksgiving, as the keel grated on the shore, for the ship's company had been saved. But at the same moment the brave pilot was engulfed by the flames; his allegiance to duty cost John Maynard his life.

ON MY HONOR, I WILL DO MY BEST TO DO MY DUTY TO GOD AND MY COUNTRY, AND TO OBEY. Obedience, respect for authority for the law of the land, for teachers, parents—how sadly lacking such respect often is in modern times.

In the days when Englishmen rode to hounds, fields of unharvested grain were not infrequently destroyed by the thoughtless hunters. Posting his son one morning at the gate of such a field, the farmer father gave him strict orders not to open the gate for any one. A party of horsemen rode up in the course of the chase and one of their number directed the boy to open the gate. This he refused to do. The horseman threatened to thrash him, but to no avail. Then a gold coin was offered—still the boy held his ground; whereupon another horseman from the waiting group approached the boy and said, "My boy, I am the King of England."

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Taking off his hat and bowing with great respect, the boy replied, "I am sure the King of England would not ask me to disobey my father."

ON MY HONOR, I WILL DO MY BEST TO DO MY DUTY TO GOD AND MY COUNTRY, AND TO OBEY THE SCOUT LAW, TO HELP OTHER PEOPLE AT ALL TIMES. In rendering service the Boy Scout is helpful, friendly and kind. Love is the greatest thing in the world; service comes next to it. "I came not to be ministered unto but to minister," said Christ.

The real purpose of all business to be successful must be to render useful service. I was talking recently with the manufacturer of a certain food product, and said to him, "Do you make a good food?" He replied, "We make nothing but the best, and," said he, "I have instructed all of our salesmen whenever any slightest criticism is made of any shipment of our goods, even if they do not believe the criticism to be justified, to ask for the return of the goods without question, and to replace them."

A customer one day bought a bill of goods from a certain concern. Later he returned, saying that a merchant up the street had told him he would give him goods of equal quality for a considerably lower price. The customer was much exercised to know what he should do. Without hesitation the salesman of the first concern said to him, "Our deal of yesterday is off; you are entirely free to buy of the other merchant. I only want you to have the best goods at the best price. If my competitor can serve you better than I can, I want you to buy his goods." Greatly relieved, the customer went back to the second merchant, but shortly returned, to say that after examining the goods which he offered, it was clear that the original purchase could not be matched at as good a price, much less a better one; and the deal with the first house was closed.

ON MY HONOR, I WILL DO MY BEST TO DO MY DUTY TO GOD AND MY COUNTRY, AND TO OBEY THE SCOUT LAW: TO HELP OTHER PEOPLE AT ALL TIMES; TO KEEP MYSELF PHYSICALLY STRONG, MENTALLY AWAKE AND MORALLY STRAIGHT. The desire to keep fit for the supreme moment of conflict when it came helped many a soldier boy in the late war to resist temptations which otherwise would have pressed him sorely. Physical fitness induces to bravery. Fit mentally means cheerfulness. Fit morally means a clean mind, free from impure thoughts and desires, which is essential to clean living.

In somewhat rough but forceful language, which might be paraphrased as follows, did a father give advice to his son who was just leaving home for college. "So live," said he, "that you can look any blank man in the eye and tell him where to go."

To you, Scoutmasters and leaders of this great Movement, let me say that it is not so much what you *say* that influences the boys in your troop as what you *are* and *do*.

A certain man of high character and winning personality had gathered about himself a group of street boys, whom he had formed into a Bible class. He was fine and clean and strong; the boys loved him, and he had great influence over them; and then he died. After conference the boys decided to ask a certain lawyer in the city to become their leader. "But," said the lawyer, "I cannot, for I am not right with God." With characteristic directness the boys replied, "Why not get right then?" This challenge the lawyer could not refuse.

The power of example, whether for good or evil, cannot be overestimated. If

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your life is not what it should be, unless you are prepared to so change it as to make it a worthy example to your boys, it were far better for you to quit scouting.

And you, boys, will never know until you have become men what an influence for good you may have on the men who are your leaders. May you help them as they are seeking to help you, to be always true to the Scout Oath and Scout Law.

The Other Fellow's Land

By L. L. M.

WHAT should a scout do, and what shouldn't he do, on other people's land? What right does a scout have on other people's property? Why must a scout ask permission to go on land he doesn't own?

"A scout is thrifty—he will not destroy other people's property."

Scouts, perhaps you have often thought of these points. If you haven't, you may be sure your scoutmaster has, and so have his assistants.

Let's get right down to the fact that a man's farm, his pasture, or his woodland means a certain amount of real money to him. If Mr. Scout and his troop come along and cut down trees, build fires, and scatter refuse on his property, they make the farmer's land less valuable. Stealing? You have never called it that. Yet you are taking something that doesn't belong to you and have taken away some of the value of those woods. You haven't put anything in your pack, of course, and carried it home. It has vanished into thin air. No one has it. Yet the owner suffers the loss, and you are responsible. Why did you do it? Be a scout!

A farm holds in its muddy soil something the farmer will later reap and sell, to feed you, perhaps. His income from the farm is going to make some one happy—you know the things your own father and mother do with the money earned and saved by them to add to your happiness. Just the same, along comes a careless scout with his troop, tramps over the farmland, has a nice, sociable rough-house in the potato field, and, presto, more value gone. They took nothing away, no thievery. Yet gone it surely has, to the happy hunting-ground along with the chopped-down trees and the torn-up garden, and the trampled-down grain, or the pasture that turned from a beautiful green to an ugly black, because someone didn't think to put out his camp-fire after he had finished cooking.

How noble a scout feels as he sings out the Scout Law at the troop meeting. It isn't so easy to remember to put this knowledge in practice, when out on the trail on some one else's land.

He says, too, that a scout is courteous. Fine! But does he practice it? Wouldn't it be much finer, more manly, to go straight up to the owner and ask him for permission to camp on or cross over his land? Men, real men, such as all real scouts try to be, do things that way. They have regard for the things that belong to the other fellow. Their axes never hack, their knives long ago stopped cutting the owners' initials on trees, their fires are built in the proper places and put OUT when no longer needed, they leave behind them a clean camp site, and when on the way home they don't forget to step in and thank the owner for the privilege.

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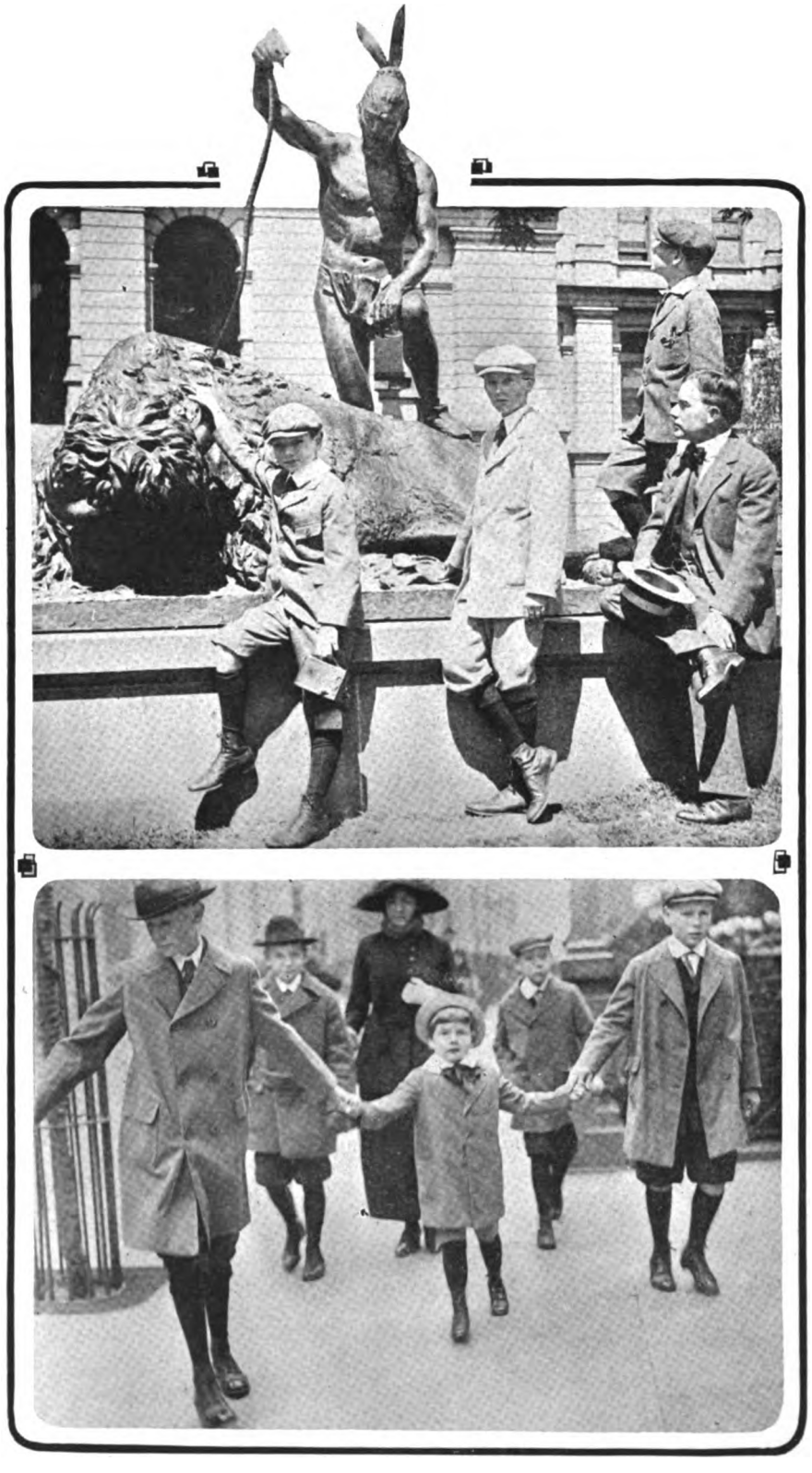

Above: Mr. Rockefeller and three of his boys on a trip through Denver, Colo.
Below: The five Rockefeller boys

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A Scout is Reverent

He is reverent toward God. He is faithful in his religious duties, and respects the convictions of others in matters of custom and religion

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What's a Boy Scout?

A Glimpse of the Life of the Boy Who "Belongs"

A SCOUT! He enjoys a hike through the woods more than he does a walk over the city's streets. He can tell north or south or east or west by the "signs." He can tie a knot that will hold, he can climb a tree which seems impossible to others, he can swim a river, he can pitch a tent, he can mend a tear in his trousers, he can tell you which fruits and seeds are poisonous and which are not, he can sight nut-bearing trees from a distance; if living near ocean or lake he can reef a sail or take his trick at the wheel, and if near any body of water at all he can pull an oar or use paddles and sculls; in the woods he knows the names of birds and animals; in the water he tells you the different varieties of fish.

A Scout walks through the woods with silent tread. No dry twigs snap under his feet and no loose stones turn over and throw him off his balance. His eyes are keen and he sees many things that others do not see. He sees tracks and signs which reveal to him the nature and habits of the creatures that made them. He knows how to stalk birds and animals and study them in their natural haunts. He sees much, but is little seen.

A Scout, like an old frontiersman, does not shout his wisdom from the housetops. He possesses the quiet power that comes from knowledge. He speaks softly and answers questions modestly. He knows a braggart but he does not challenge him, allowing the boaster to expose his ignorance by his own loose-wagging tongue.

A Scout holds his honor to be his most precious possession, and he would die rather than have it stained. He knows what is his duty and all obligations imposed by duty he fulfills of his own free will. His sense of honor is his only taskmaster, and his honor he guards as jealously as did the knights of old. In this manner a Scout wins the confidence and respect of all people.

A Scout can kindle a fire in the forest on the wettest day and he seldom uses more than one match. When no matches can be had he can still have a fire, for he knows the secret of the rubbing sticks used by the Indians, and he knows how to start a blaze with only his knife blade and a piece of flint. He knows, also, the danger of forest fires, and he kindles a blaze that will not spread. The fire once started, what a meal he can prepare out there in

In Camp

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the open! Just watch him and compare his appetite with that of a boy who lounges at a lunch counter in a crowded city. He knows the unwritten rules of the campfire and he contributes his share to the pleasures of the council. He also knows when to sit silent before the ruddy embers and give his mind free play.

A Scout practices self-control, for he knows that men who master problems in the world must first master themselves. He keeps a close guard on his temper and never makes a silly spectacle of himself by losing his head. He keeps a close guard on his tongue, for he knows that loud speech is often a cloak to ignorance, that swearing is a sign of weakness and that untruthfulness shatters the confidence of others. He keeps a close guard on his appetite and eats moderately of food which will make him strong; he never uses alcoholic liquors because he does not wish to poison his body; he desires a clear, active brain, so he avoids tobacco.

A Scout never flinches in the face of danger, for he knows that at such a time every faculty must be alert to preserve his safety and that of others. He knows what to do in case of fire, or panic, or shipwreck; he trains his mind to direct and his body to act. In all emergencies he sets an example of resourcefulness, coolness and courage, and considers the safety of others before that of himself. He is especially considerate of the helpless and weak.

A Scout can make himself known to a brother Scout wherever he may be by a method which only Scouts can know. He has brothers in every city in the land and in every country in the world. Wherever he goes he can give his signs and be assured of a friendly welcome. He can talk with a brother Scout without making a sound or he can make known his message by imitating the click of a telegraph key.

THE SCOUT OATH

On my honor I will do my best:
1. To do my duty to God and my country, and to obey the Scout Law;
2. To help other people at all times;
3. To keep myself physically strong, mentally awake, and morally straight.

THE SCOUT LAW

1. A SCOUT IS TRUSTWORTHY.
A Scout's honor is to be trusted. If he were to violate his honor by telling a lie, or by cheating, or by not doing exactly a given task, when trusted on his honor, he may be directed to hand over his Scout badge.

2. A SCOUT IS LOYAL.
He is loyal to all to whom loyalty is due: his Scout leader, his home, and parents and country.

3. A SCOUT IS HELPFUL.
He must be prepared at any time to save life, help injured persons, and share the home duties. He must *do at least one good turn to somebody every day.*

4. A SCOUT IS FRIENDLY.
He is a friend to all and a brother to every other Scout.

5. A SCOUT IS COURTEOUS.
He is polite to all, especially to women, children, old people, and the weak and helpless. *He must not take pay for being helpful or courteous.*

6. A SCOUT IS KIND.
He is a friend to animals. He will not kill nor hurt any living creature needlessly, but will strive to save and protect all harmless life.

7. A SCOUT IS OBEDIENT.
He obeys his parents, scout master, patrol leader, and all other duly constituted authorities.

8. A SCOUT IS CHEERFUL.
He smiles whenever he can. His obedience to orders is prompt and cheery. He never shirks nor grumbles at hardships.

9. A SCOUT IS THRIFTY.
He does not wantonly destroy property. He works faithfully, wastes nothing, and makes the best use of his opportunities. He saves his money so that he may pay his own way, be generous to those in need, and helpful to worthy objects. *He may work for pay but must not receive tips for courtesies or good turns.*

10. A SCOUT IS BRAVE.
He has the courage to face danger in spite of fear and has to stand up for the right against the coaxings of friends or the jeers or threats of enemies, and defeat does not down him.

11. A SCOUT IS CLEAN.
He keeps clean in body and thought, stands for clean speech, clean sport, clean habits, and travels with a clean crowd.

12. A SCOUT IS REVERENT.
He is reverent toward God. He is faithful in his religious duties and respects the conviction of others in matters of custom and religion.

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The Daily Good Turn

A Scout is kind to everything that lives. He knows that horses, dogs and cats have their rights and he respects them. A Scout prides himself upon doing "good turns," and no day in his life is complete unless he has been of aid to some person.

A Scout does not run away or call for help when an accident occurs. If a person is cut he knows how to stop the flow of blood and gently and carefully bind up the wound. If a person is burned his knowledge tells him how to alleviate the suffering. If any one is dragged from the water unconscious, a Scout at once sets to work to restore respiration and circulation. He knows that not a minute can be lost.

A Scout knows that people expect more of him than they do of other boys and he governs his conduct so that no word of reproach can truthfully be brought against the great brotherhood to which he has pledged his loyalty. He seeks always to make the word "Scout" worthy of the respect of people whose opinions have value. He wears his uniform worthily.

A Scout knows his city as well as he knows the trails in the forest. He can guide a stranger wherever he desires to go, and this knowledge of short-cuts saves him many needless steps. He knows where the police stations are located, where the fire-alarm boxes are placed, where the nearest doctor lives, where the hospitals are, and which is the quickest way to reach them. He knows the names of the city officials and the nature of their duties. A Scout is proud of his city and freely offers his services when he can help.

A Scout is a patriot and is always ready to serve his country at a minute's notice. He loves Old Glory and knows the proper forms of offering it respect. He never permits its folds to touch the ground. He knows how his country is governed and who are the men in high authority. He desires a strong body, an alert mind and an unconquerable spirit, so that he may serve his country in any need. He patterns his life after those of great Americans who have had a high sense of duty and who have served the nation well.

A Scout chooses as his motto "Be Prepared," and he seeks to prepare himself for anything—to rescue a companion, to ford a stream, to gather firewood, to help strangers, to distinguish right from wrong, to serve his fellowmen, his country and his God—always to "Be Prepared."

How to Become a Boy Scout

HOW can I join the Scouts? Hundreds of boys ask this question every day.

If you want to become a Scout, the first thing for you to do is to find out whether or not there is a troop organized in your town or city. If there is, you should call on the Scoutmaster of the troop and apply for admission. The Scoutmaster would then tell you just what you would have to do to become a member.

If you live in a large city where there is a Scout Commissioner or Scout Execu-

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tive—and nearly every large city has one—it would be better for you to apply to him. He will tell you which troop it would be best for you to join—or possibly he will help you organize a troop of your own.

But if there is no Scout organization in your town your problem is entirely different, for you must have a troop organized. The first thing to do is to get a copy of the official "Handbook for Boys." You may be able to buy one at your local bookstore, but if not you can get one from National Headquarters, 200 Fifth Avenue, New York, N. Y., for 50 cents. Read this book carefully.

Next you must talk with your boy friends and get them interested. When you have enough boys to form a patrol—at least eight boys—you are ready to organize.

Your next problem is to get a Scoutmaster. He must be a man over twenty-one years of age whose good character will be vouched for by others. If you have not already found one who is willing to take charge, you must find one, for you cannot become Scouts until you have a man at the head of your troop. Try all your fathers and brothers and see if one of them will not consent to help you out. If none of them will do this, pick out some other man you know, and try to get him interested. Send his name to the National Headquarters and ask them to write to him. In the meantime, show your man that you mean business. *And don't quit!* If you try long enough you will get one.

Probably your troop will be connected with some school or church or other institution. If so, your scoutmaster will see the head man of the institution and explain to him that a troop committee must be appointed. This committee will be composed of three or more men appointed by the proper authorities of the institution, i. e., Board of Trustees, Directors, Executive Committee, etc. If the troop is not connected with any institution the committee should be composed of prominent men who represent the best elements in the community. These men may be selected by the scoutmaster or they may constitute themselves a committee, for purposes of organization, subject to approval of National Headquarters. The Scoutmaster or the troop committee will apply to Headquarters for Scoutmasters' and Assistant Scoutmasters' application blanks, as well as registration blanks. These will be approved by members of the Troop Committee, who will agree to provide a new leader if it should become necessary to appoint one.

The scoutmaster will ask you and the other boys to sign applications for admission to the troop and these applications will be endorsed by your parents. He will send in your fees, which are 25 cents a year for each scout, and your names will be officially enrolled with those of the tens of thousands of other boys who are members of the great organization. You will then receive an official certificate and be entitled to wear the official badges and uniform and will be in a position to begin your progress in scouting and advance through the various degrees. Possibly you will become an Eagle Scout, and thus reach the highest rank in the organization.

Respect for Country

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SPORTS, HANDICRAFTS AND HOBBIES

"Skis and Skiing Equipment"
By Elon Jessup.

"How to Make Your Own Snowshoes"
By Dan Beard.

"Winter Sports for Husky Scouts"
By Dan Beard.

"Making an Ice Yacht"
By Dan Beard.

"Fixing Up Your Fishing Rod"
By Ladd Plumley.

"How to Build a Block House"
By Dan Beard.

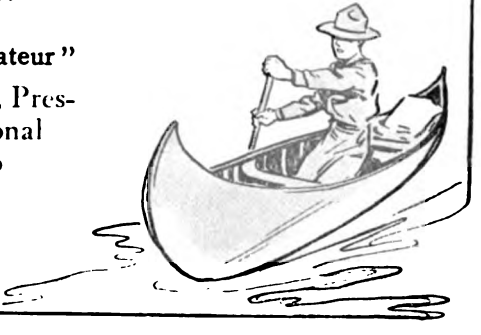
"Building Rustic Bridges"
By Harold V. Walsh.

Boys Tell How to Make

A Crossbow—An Electric Candle—A Table Lamp—A Homemade Horn for the Bicycle—A Signaling and Camp Lantern—A Plane Table.

"Making Model Aeroplanes"
By F. A. Collins.

"For the Wireless Amateur"
By J. Andrew White, President of the National Amateur Radio Association.



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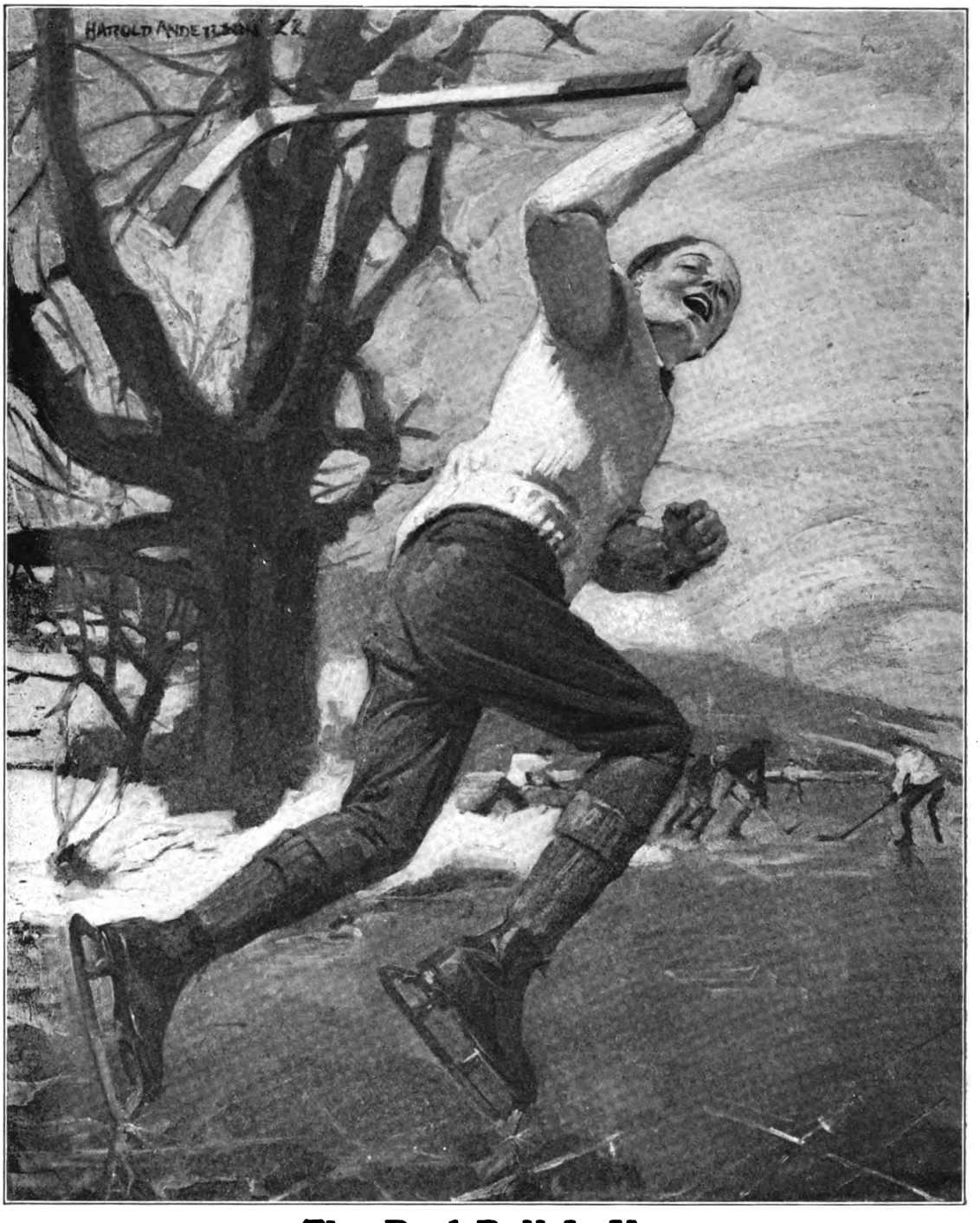

The Red Ball Is Up

Hurry up! Come on out!
With a cheer and a shout.
Let laggards stay home and
the weak and the wan!
But oh, fellows like you—
Who are scouts and are
true—
The red ball is up and the
skating is on.

There's a bite in the air,
But what chap wouldn't dare
The cut of the wind for the
sake of the game!
So, haste! Come along!
With your skates join the
throng.
Unless you're a crawl-foot,
scout only in name.

They are forming a team
By the side of the stream;
They are waiting for you
with the sticks and the
puck.
Make it snappy! Get in!
And then, play hard to win!
May the better team triumph!
Here's wishing you luck!

But remember, don't bleat
If you meet with defeat,
And mumble excuses and
alibis lame;
After all, it was fun,
Though you lost or you won,
And the world has a cheer
for the loser who's game.

By EDMUND LEAMY

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Skis and Skiing Equipment

By Elon Jessup

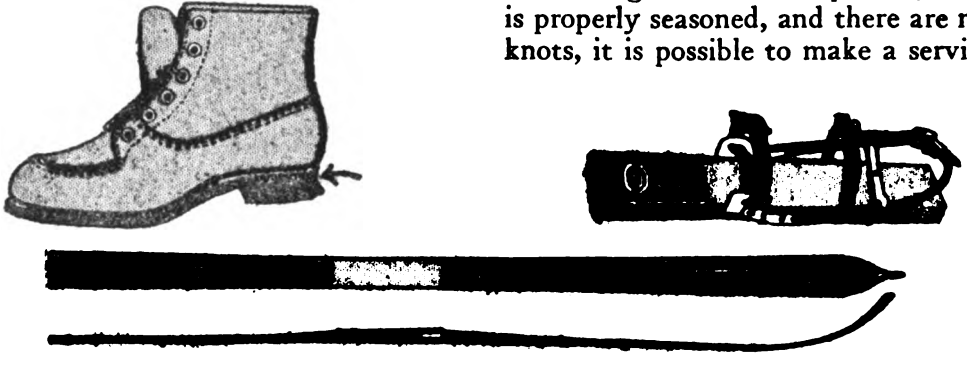
ENJOYMENT and success in almost any sport are largely dependent upon having the right kind of equipment. But of all sports there is none in which greater care must be given to the selection of equipment than is skiing.

In more than one instance, a broken leg has resulted from an imperfect ski, a badly twisted ankle from an unsuitable ski harness. Long-planned winter vacations which have been spoiled because of the lack of proper foresight in selecting the right sort of skiing equipment are numerous. There have been boots which fitted neither skis, nor harness, boots which chafed and raised painful blisters on the feet. Or perhaps the ski harness has been at fault. This, in itself can make life quite miserable. But likely as not it is the skis which have been the offenders. Not sufficient care has been given to such matters as the variety of wood, the grain, the possibility of splitting, and the proper length of the ski.

I well recall a skiing vacation which a friend and I took two winters ago. We traveled a good many miles by railroad for this vacation, alighted joyously from the train at the edge of the white blanketed countryside, strapped on our skis and struck across the white waste breathing deeply the joy of living. But suddenly our invigorating fun came to an abrupt end.

It happened that the pair of skis which my friend wore were cheap, cross-grained pine. While coasting at high speed down a long, fast hill, he suddenly performed a none too graceful somersault and then upon picking himself up found that his right ski had split completely in two directly behind his boot. There was no possible way of mending it and not another pair of skis to be had within a radius of fifty miles. His skiing vacation was over before it had hardly started.

Of first importance in the examination of a pair of skis comes the wood—its variety and grain. Pine, spruce, birch, maple, magnolia, ash, and hickory are various woods from which skis are made. Provided the grain is above reproach, the wood is properly seasoned, and there are no bad knots, it is possible to make a serviceable



A regulation Skiing Shoe. Note the curve in the heel. Good ski harness is shown, as well as the "telemark" type of ski

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pair of skis from any of these. But at the same time, experience has proved that there are only two of these various woods which are universally satisfactory. These two are ash and hickory. Ash or hickory skis will cost you twice as much as those of pine but they are easily worth the difference.

The presence of a long groove on the bottom of the ski and running nearly its full length is a distinct help in keeping one steady while skiing. This serves as a purchase upon the snow and prevents much aimless slipping. Most skis are made with this groove but there are some which are not. Ordinarily, the groove runs down the direct center of the bottom of the ski. Some skis are made with two grooves and those used for jumping very often have even three. For all ordinary purposes, either one or two grooves are quite enough.

We now come to ski models. In view of the fact that there are only two models in general use it may be ventured that this is a fairly simple problem to solve. Of these two, the one wisest to choose is the one most suitable for the particular type of skiing and country in which they are to be used.

The "cross country" and "straight side" are names by which one of these models is known. This type of ski, with the exception of the extreme front and rear ends, is the same width throughout its length. It is a ski which is built for straight ahead racing and for making speed over a flat country such as the prairies. This ski is wholly impractical for a hilly country because of its inability to make turns. But in a flat, level country where there are great distances to be covered, it is the most suitable type.

The remaining model of ski is far more generally used than the "straight side." This is known as the "telemark." The name comes from the Telemarken peasants of Norway who originated this mode centuries ago and have been using it ever since.

Although the exact measurements of the "telemark" vary, its outlines are always the same. The "telemark" differs from the "straight side" in construction in that the width is a variable quantity throughout its entire length. The forward part, from the position of the boot on is somewhat the shape of an elongated spoon. The width at the front end just below the upturned tip in a well-constructed "telemark" is between three and one-half and four inches. This tapers down gradually so that at the position of the skier's boot the ski is about an inch narrower than at the front. From the foot position, however, the ski tapers outward and at the extreme end it becomes nearly as wide as the forward end.

It seems strange that so simple a matter as this slightly varying width should make a world of difference in the usefulness of a ski but this it does. While with the even width "straight side" model a quick turn during a coast down hill becomes an extremely difficult matter, the same turn with the "telemark" can be negotiated with ease. The "telemark" is the more all around model and as a rule the far more satisfactory in the sort of country where skis are most used.

It is not surprising that so many beginners should pick out skis which are too short for them. Before you have become accustomed to these long, rangy snow boats they surely do look unwieldy and unmanageable. Yet, in reality a fairly long pair of skis are easier to manage than a very short pair. There is a correct length however, for every one, and what this may be depends upon your height and reach. The usual rule for picking out the right length is to stand the ski on end and then reach your arm up over your head. If the finger

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tips touch the tip of the ski, the length is correct.

Skis are made in various lengths varying from five to nine feet. These measurements, as a rule, skip from 5 to 5½, from 5½ to 6 feet, and so on. Let us suppose that one's reach is half way between 6½ and 7 feet. It does not make any vital difference which of these lengths is chosen. If one expects to go in for downhill skiing turns to a considerable extent, the short length is perhaps more suitable but for straight ahead running and coasting the longer might be better. With the "straight side" model there is no harm in a ski which is considerably longer than your reach. The main drawback to a "telemark" which is far too long for your reach is that it makes turning difficult.

So much for the proper wood, grain, model, and length in the selection of a pair of skis. Fully as important in some respects is the harness which holds one's feet to the skis. Although there are only two types of skis, there are fully a dozen different kinds of harnesses. In some instances, the harness is already attached to the ski but more often each is sold separately and you have your choice of a number of foot binding devices. Although I will take up the question of boots more fully further on I might suggest at this point that it is wise to buy skis, harness, and boots which are entirely compatible with each other.

Some ski harnesses are rigid while others are flexible, some are easy to put on and take off and others are troublesome. The best harness is one which is a happy combination of rigidity and flexibility and one which can be readily unfastened or fastened. I was once witness to a happening which may be worthy of mention in this connection. At least, it proved that a harness which can be unbuckled instantly is not without its good points.

I was one of a party of outdoorsmen exploring on skis the White Mountains in winter. While following the Pemigawasset River we came to the edge of a black, wide, deep water hole. Suddenly, one of the men slipped and fell into this icy water, skis and all, sank for the moment completely out of sight. He had the presence of mind immediately to reach back and disengage his skis. Fortunately the ski harness attached to his feet was a type which could be unbuckled instantly. But for this fact, matters might have gone ill with him. With skis out of the way and floating down stream, he swam safely to shore.

This incident was unusual, to be sure, and a chilly bath of the sort is unlikely to come the way of the average skier. But there are plenty of times on ordinary snow-covered slopes when most any skier feels thankful to a harness which has a certain amount of flexibility and from which his foot can be disengaged in a jiffy. This flexibility should be sufficient to allow your foot to bend at the toes in case you fall forward. If the harness is too rigid for this, the result may be a broken leg. In a general way, it may be said that there should be a generous amount of up and down play to a binding and but slight amount of sideways play.

Another element to consider is the fact that all feet are not built alike. The toes of some people are stiff while those of others are supple. And if you find that the particular kind of harness which you are wearing does not offer the proper combination of rigidity and flexibility for your particular feet the wisest plan is to take it off and hunt up another kind.

Practically all ski harnesses now manufactured in this country are copied from European models. Even American ingenuity has been at a loss to bring out any startlingly new ideas. As a matter of fact, there are only a few dependable models

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and from these I will select for description the one which I have found the most satisfactory and which is more generally used than any other in this country.

In Europe, where this particular harness was invented, it is known as the "Huitfeldt" with the "Ellefsen" patent buckle. In our own country, it is manufactured by a half dozen different firms and sold under as many respective names. In one or two instances, slight variations in construction have been added to the original European ideas but in all essentials the model remains the same. It is a difficult harness to improve upon.

With this Huitfeldt harness, the toe of the boot is held in place by a metal clamp on either edge of the ski. A short connecting strap between these clamps runs across the cap of the boot. A longer strap reinforced with rawhide encircles the heel. The ends of this are permanently anchored at the respective toe clamps. Near the rear of this strap at a point where it fits around the heel is a metal, snap lever buckle. With a quick flick of the fingers, this buckle can be instantly closed or opened. And it is by these respective proceedings that the boot is attached or released from the ski. It is an arrangement which is snug and secure enough to hold the foot firmly in place on the ski as long as you wish it there and at the same time you can toss your skis free with a mere kick if the need arises.

We now come to another highly important item of skiing equipment—the boots. The boots must fit the wearer, the harness, and the skis. Unless these three work in perfect unison one is subject to almost constant discomfort and annoyance. Especially with the Huitfeldt and other types of harnesses which depend mainly upon a heel strap for their security, is the right kind of boot necessary. In these instances, the heel of the boot must be concave around the edge so that the heel strap finds a firm purchase in this groove. Otherwise, the strap will slip off constantly and become a source of continual bother.

The ordinary soft, flat-bottomed mocassin worn so effectively on snow shoes is wholly unsuitable for skiing. But if a concave heel and thick wide sole are attached to the bottom of this mocassin it may sometimes become a very fair skiing boot.

It is important that the skiing boots be roomy. They must not bind or restrict the circulation in any way. Make allowance for three pairs of socks, for the time will come in skiing when these will be needed. Ski boots should be from one to two full sizes larger than your ordinary street shoes. An inner sole can always be added when not so many socks are worn. The boots should be kept well oiled.

Ski wax, ski poles, a good knife, emergency buckskin thongs, a ruck sack for carrying lunch and peeled-off clothing when exerting oneself—these items fairly well complete the list of skiing equipment for all ordinary purposes. In regard to a knife I may say that there is none better than the Boy Scout's knife. This useful article is something of a small tool chest in itself and contains an awl and screwdriver which are invaluable in connection with skis.

Ski poles cannot be recommended without certain qualifications. Although these add greatly to the speed and enjoyment of the sport, it may be said that the beginner would do wisely to postpone their use until he has begun to feel pretty well at home on skis without the help of poles. Ski poles sometimes become dangerous weapons in the hands of a panicky beginner. There have been instances where people have fallen upon the sharp metal points and seriously injured themselves.

In any case, the beginner invariably regards the ski poles as a pair of crutches and becomes far too dependent upon them for his own good.

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How to Make Your Own Snowshoes

By Dan Beard

Illustrated by the Author

MANY funny things occur in this funny old world of ours. While up in northern Quebec one of my scouts was called "Big Medicine" for showing the Indians how to build a fire without matches, that is, showing them their own invention! Mr. Langdon Gibson, my old-time rowing mate, while in the Arctics with Commodore Perry, taught the Eskimos how to use *snowshoes!*

But the flat-faced, jovial Eskimos did not invent snowshoes, they were invented further south by the Indians, who evolved this lawn tennis racketlike footgear ages before the white man came to America.

Until recently the St. Regis Indians, inhabiting both sides of the St. Lawrence River, made the snowshoes generally used in New York State and marketed them at Ogdensburg and Plattsburg, but now the dealers tell me that their principal supply of snowshoes is from Maine.

Until a comparatively recent time snowshoeing was confined to the Indians, and was a necessary part of their education, for by means of these graceful and wonderful contrivances the Red hunters were able to hunt over the white expanses of snow in winter and also to bring to their tepee, wigwam or wicky-up the trophies of the chase. On account of the depth of the snow in the Northland it is ofttimes impossible to travel without snowshoes.

Whenever it was really necessary for the Indian to invent a thing he proceeded to do so in a masterly manner; his toboggans, birch-bark canoes and snowshoes have not been improved upon by white men. But the white folks have made playthings of the useful utensils of the Redmen. The toboggan is used by us for coasting, the canoe for vacation amusement and the snowshoe for winter sport.

Indians use many styles of snowshoes (Figs. 1, 2, 3, 4, 5, 6, 7E, 8, 9), but the ones worn in the forests of New York, Michigan, Maine and Canada are practically of one pattern, three feet long, oval shape and known as "bear paws" (Figs. 6 and 7). I saw one such shoe picked up on the Flathead Reservation, but in the open country a shoe about four feet long, tapering down to a spur eight inches long (Figs. 10 and 11), is popular. The spur or tail acts as a sort of rudder and also has a tendency to project the foot forward two or three inches; as it falls in the snow, the extra leverage or push of the tail or spur of the shoe adds considerably to the speed of the snowshoers.

In northern British Columbia, up at the head of the Stickine River, in the rugged and timbered land where the winter snows vary from three to ten feet in depth, trapper and Indian use the "Tahl Tahn" shoe (Figs, 1, 2 and 3), which is from a foot

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How to Make Your Own Snowshoes

to sixteen inches wide, with a length to suit the wearer varying from four to six feet. The Tahl Tahn Indians look with contempt upon all the oval snowshoes with or without wooden tails and derisively called such contrivances tenderfoot frying pans.

Frame

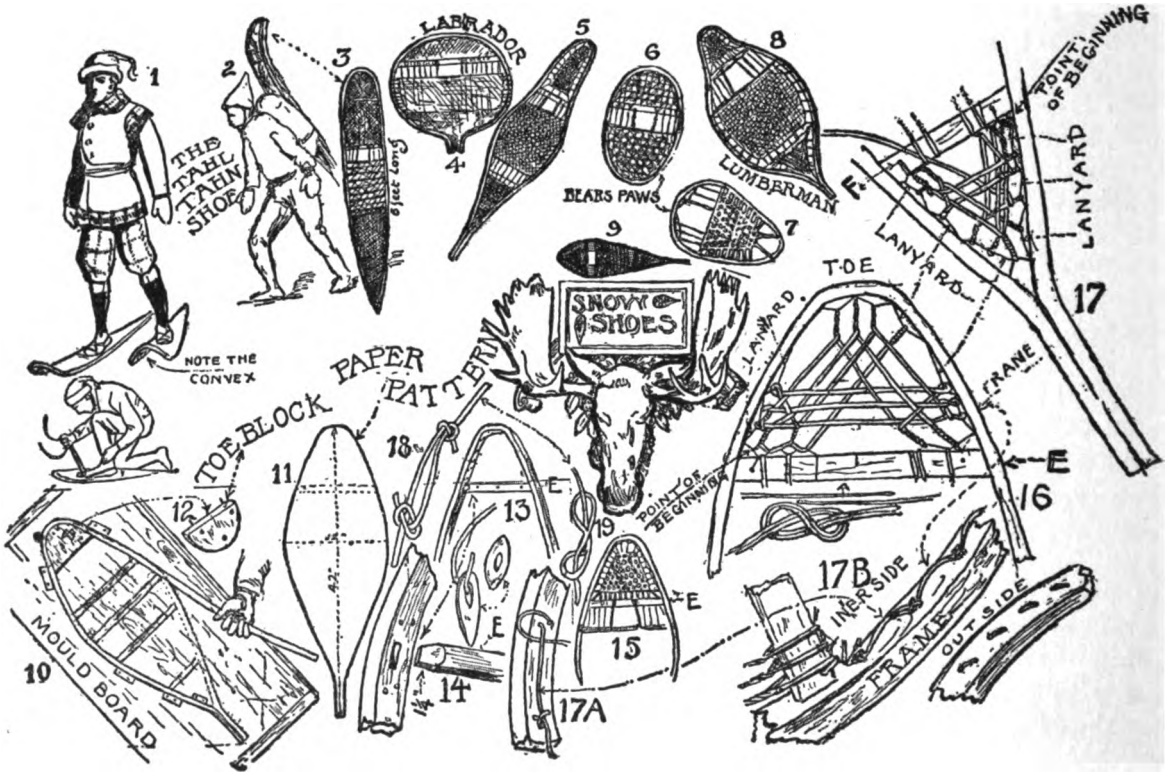
The Tahl Tahn use white spruce saplings or birch, farther south the light strong frame is made of ash, or white or yellow birch. Select a white ash if you can locate one, if not take the birch or hickory.

The law of the wilderness is to use the material at hand. If you are fortunate enough to locate white ash use that, but hickory will answer the purpose.

Should your choice be a birch, pick out a tall and shapely tree, one that is not "wind shook," but of a straight grain; avoid a tree with red bark and upright branches because its wood is said to be not as strong as that of a tree with drooping branches.

"Fall" the tree and chop from the log a piece about ten feet long and six inches in diameter; hunt for a handy prostrate log, cut a notch in it to use as a vise to hold your ten-foot piece while you cut a straight groove from one end of the latter to the other; turn the ten-foot piece over and cut a similar groove upon the opposite side of the log so that it will split in half from light blows of the axe blade made carefully on both sides in the grooves cut for that purpose. Into the crack made by the axe blade at the end of the ten-foot piece drive gluts (wooden wedges); let the gluts follow the split made when driving them in.

Select the best half of the log and cut a groove along the middle of the outside



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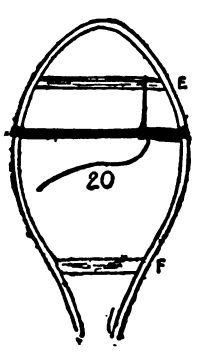
from end to end; split as before and you will have material for two frames. This may be used green or be put away for a few weeks to air dry. Kiln-dried lumber has not the life in it that is possessed by air-seasoned material. Next find or make yourself a molding board (Fig. 10), and hunt up a piece of manila paper over a foot wide and over four feet long; fold it in the center lengthwise; see dotted lines (Fig. 11); and cut out the pattern; place the pattern on the molding board (Fig. 10), being careful that both side are alike. Next carve out a toe block (Fig. 12) and screw or nail it to the molding board (Fig. 10); the other blocks may be attached as required and should be prepared beforehand even to driving the nails through them until their points appear on the underside of the blocks.

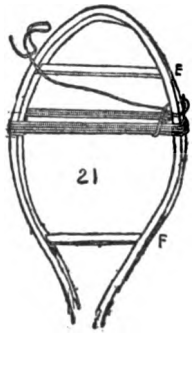
It may, however, be necessary to steam the framework.

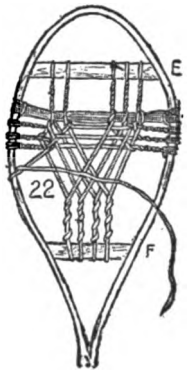
Before seasoned wood can be properly bent this is absolutely necessary and can be done by wrapping the wood with cloths and pouring hot water over the wrapping; don't try to bend the wood until after it has been well scalded, either as described or by placing the stick over a vessel of boiling water and using a mop of rags to keep the wood wet with hot water. A water barrel filled with water may be heated by dropping hot stones in it as our grandparents used to do at pig killing time.

One-half hour spent in applying hot water to the frame will so soften the fibres in wood that it may be gradually bent (Fig. 10) to the form required. The reader will note that there are a couple of spreaders (E and F, Figs. 13, 14, 15, 16 and 17). These spreaders, or braces, must be long enough to fit tightly into the frame when adjusted. In the square-toed snowshoe, which an Ojibway Indian made for me, the spreaders are sprung into the frame at points 14½ inches from the toe and 14½ inches from that to the heel brace. On this same snowshoe it is 18 inches from the heel brace (F) to the tip of the heel. The brace (E) near the toe and the brace (F) near the heel of the shoe fit into holes cut for that purpose on the inside of the frame (Figs. 13 and 14). These holes are called mortises and are one-quarter of an inch deep. The braces are sprung into the holes. The tail of the snowshoe is held together by thongs run through three holes drilled through the frame for that purpose. Homemade shoes in the farming districts have the tails bound with wire.

The Indian does not use a two-foot rule or tapeline either for his canoe, toboggan or snowshoe, he measures with his eye and judges by experience; he arranges the braces so that when he attempts to balance the frame at a point midway between the braces the tail will dip down; that is, it will weigh maybe slightly more than the toe. When the spot for the braces is determined the places are marked on the frame and the mortises cut at these points (Figs. 13 and 14).







To "fill" the snowshoe, that is, to make the basket-work or netting, the Indians use one-sixteenth of an inch "Ba-bitch"; caribou hide is considered the best for the toe and heel. For the middle part filling use a quarter of an

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inch moose hide; let the toe and heel mesh be about three-eighths of an inch and the middle mesh about a quarter of an inch, though commercial shoes are made much coarser and with a wider mesh.

It is not to be supposed that persons in the cities and settled sections of the country can secure green moose and caribou hide, but from their butchers all of them may secure raw hide of cows and calves.

Substitutes for "ba-bitch" may be made of cotton cord, fish line, whang strings, sometimes called belt lacings. I have a pair of snowshoes in which the mesh is all made of commercial wrapping cord; these shoes have seen good service. Before using the whang strings wet them, tie weights to one end and fasten the other end to a peg or branch of a tree and let them stretch. If fish line or cotton cord is used pursue the same method, and do the netting while the cord is still moist.

The Lanyard

Figs. 16 and 17 is the light line running along the inside of the frame at both toe and heel, to which the lacing is attached. It should be about five-sixteenths of an inch wide and laced through the double holes in the toe and the heel shown in Figs. 17A and 17B. 17A shows how to loop the lanyards through the holes. In netting use a wooden needle, which varies in shape from a long dull-pointed wooden needle six inches in length to a more or less elliptical shaped one like that shown in Fig. 13. All of the network and filling is put in while the rawhide is moist, but the lanyard is allowed to dry before the netting is filled in the frame. The lanyard should be stretched as tightly as possible.

It is not good form to have knots in your netting, but if you must tie knots, Fig. 18 shows a method of doing so. However, the best way to join two pieces of rawhide is to cut slits in the ends of the rawhide and put the other ends through the loops thus formed (Fig. 19). Figs. 20, 21 and 22 show how the middle netting is begun and how it is attached to the frame. The process as begun here is continued until the whole network is complete.

The Painter of Windows

By Sherman Ripley

His colors were mist that the midnight had kissed
All mixed with a magic untold;
His palette a slice of the clearest of ice,
His crayons were crystals of cold.
Through a curtain of curls set with dew-drops
and pearls
Shone the moonlight's bewildering glow,
As he drew deep-sea ferns with their feathery
turns,
And powdered them over with snow.
There he squatted all night in the silvery light,
And he painted and painted away
With a mystical charm, until the cockerel's alarm
Forecasted the coming of day.

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Winter Sports for Husky Scouts

By Dan Beard

IN this age of flying machines, automobiles and ice boats, every one wants to travel rapidly and the common fault of beginners in snowshoeing is an attempt on their part to travel with undue speed. By this means they soon become fatigued and blame the snowshoes for their own lack of thought. Another common error is the belief that snowshoeing must be learned with difficulty as is skating and swimming; on the contrary any one who can walk without snowshoes can walk with them. We do not mean to say that it can be done easily the first time, but after three or four trials a novice should be able to do at least three miles without fatigue.

Snow after a thaw and a freeze is best suited for snowshoeing, as the slight crust keeps the broad-webbed shoe from sinking, and when the ground is covered with a mantle of crusted snow and the moon is shining bright there is no better sport for a group of scouts than a five or ten mile hike over the glistening crust. Such a hike gives more pleasure when taken over a range of hills. From an elevation, of course, the view is broader and the sensation of being up in the world is just as pleasant on snowshoes as it is in social life, and far more invigorating.

A few hours of this manly outdoor exercise not only gives one a ravenous appetite but it insures a good night's sleep, and also makes certain that the scouts will have another trial at this sport upon the first opportunity for the habit grows on one. Then they may sing,

"We've been hiking on the mountain,
All the live-long day,
We've been cooking beans and bacon
Just to pass the time away.
We are hungry and tired,
Bet we'll sleep to-night,
We're the Boy Scout hikers,
Yes, and we're all right.
Rah! Rah! Rah!"

(Tune, "We've been workin on the railroad.")

The snowshoe costume, while not made for effect, is a strikingly pretty one. It should be made of blankets, usually white blankets, and stripes on the blankets will add a decorative effect. This blanket suit is a modification of the old lumber jack costume, and the lumber jack costume is a modification of the Canadian Indian (blanket) costume, so the whole thing is truly American. The body is covered with a blanket tunic, the head with a toque, which ends with a tassel at the top. In severe weather the toque is pulled down over the ears and brows. Besides the toque there is a pointed hood at the back of the mackinaw coat which may be pulled over the toque. The breeches are made after the style of the riding breeches or knickerbockers and the lower legs are covered with

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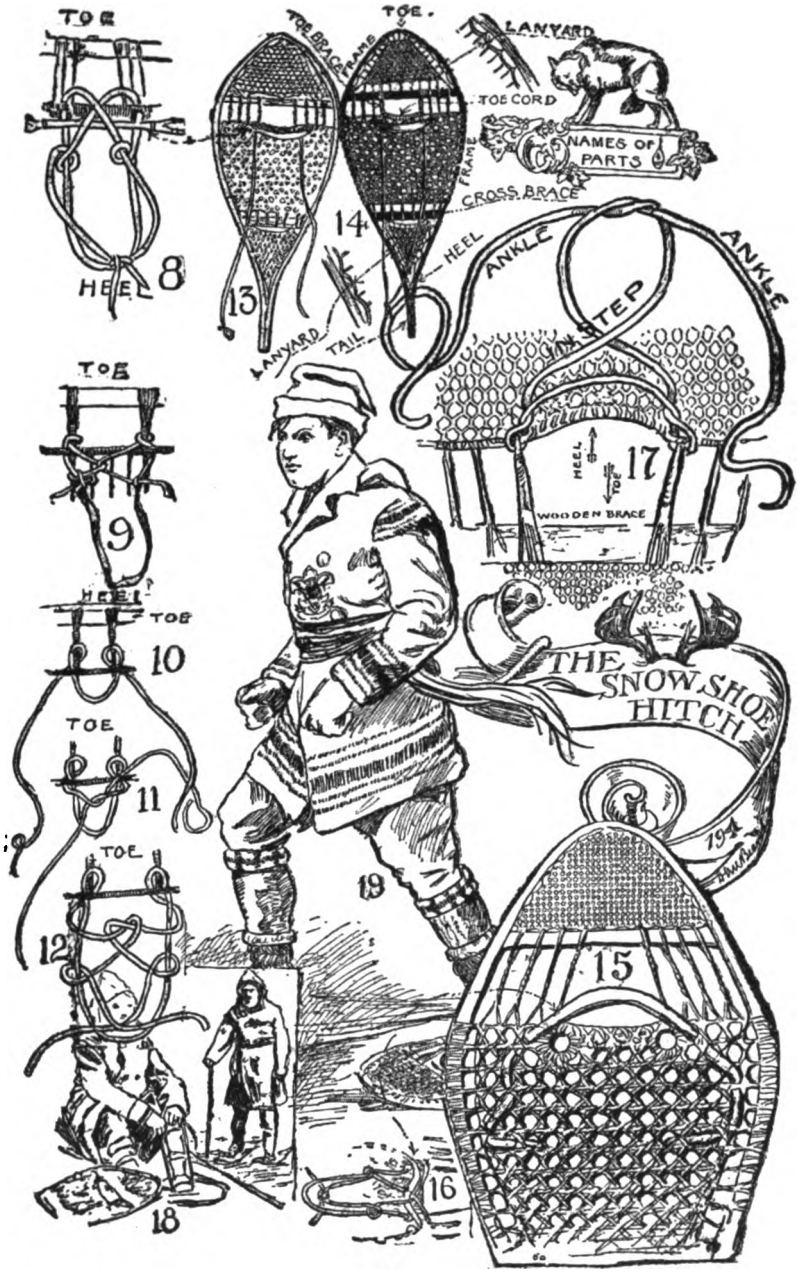
heavy woolen stockings. The snowshoer wears several pairs of stockings, the long pairs reaching up over the bottom of the knickerbockers like golf stockings and the shorter coming over the stockings roll down over the top of the moccasins in a tight roll which prevents the fine snow from working in the moccasins; see Figs. 7 and 19.

Of course the best foot covering is the high moccasin which comes up around the ankle and is proof against the severest weather, while at the same time it allows the foot to move naturally and freely. Should it happen that any of the scouts have snowshoes but no moccasins, they can make a warm covering for the feet by taking pieces of blanket, one foot six inches square, Fig. 1, and folding the blanket over the foot as in Figs. 2 and 3, and then tucking the end, A, under the feet as in Figs. 4 and 5, bringing the heel up as in Fig. 6, and pulling the woolen sock over it to hold it in place. Woolen socks, by the way, kept my feet warm without shoes during the terrible blizzard we had in '87 when I discovered that an ordinary shoe did not protect my foot from the intense cold, and no matter how many socks I had on if I put a rubber boot over them the cold struck through and I felt just as if I had put my foot in ice water.



When improperly protected, frost attacks the extremities first, the hands, feet and head. In case you have a slight frost bite take a double

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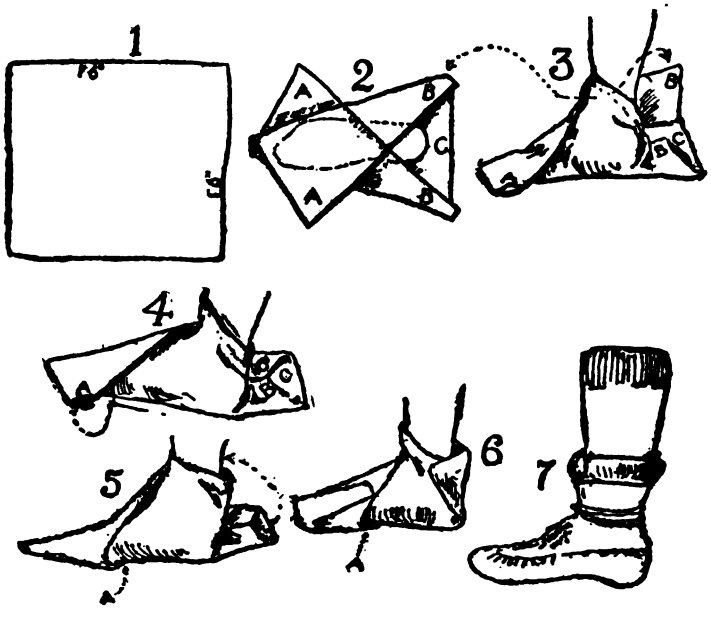
handful of snow and rub the frosted parts until circulation returns. It will hurt, but the sensation is not near as painful or the results as disastrous as it is when the frost bite is neglected. Remember, a man never freezes to death until *his head is frozen;* when the head begins to freeze the man begins to get drowsy and wants to sleep, but if allowed to do so under such circumstances, when he awakes it will be on the other side of the Great Divide where all snowshoe tracks point one way.

In snowshoeing wear mittens; let them be fastened together with a bit of tape just as your mother fastened your mittens when you were a small kid.

The broad red sash bound around the snowshoer's waist is another article borrowed from the redman and by the amateurs it is thought to be worn as an ornament, but this is not the case; the band around the waist binds the tunic, or jacket, or mackinaw coat, to the body and keeps one's abdomen warm and also prevents the biting wind from finding its way into the tunic where it does not belong, Fig. 19.

Before an Indian starts out on a snowshoe hike he sees that his sash is properly adjusted, and his toque is on his head, then he drops to his knees and fastens his moccasins and is off. The white man also bends forward and ties his snowshoes or sits down and does it, Fig. 18; but both the white man and the Indian have their own manner of doing this. Figs. 8, 9 and 12 show different methods of tying on the snowshoe, the sketches were drawn directly from the hitches made by the Indians in Canada. Figs. 10 and 11 show the process of making the ties shown in Fig. 12. Figs. 13 and 14 show snowshoes with a toe strap under which the snowshoer's toe is slipped before the shoe is lashed to his foot. Fig. 15 shows an enlarged view of the lumberman's shoe with a toe strap from a sketch made in Maine. Fig. 16 shows how the thongs are lashed to the foot when this toe strap is used. Fig. 17 is an enlarged view of a section of the snowshoe showing a hitch partially made and with the help of these diagrams any scout should be able to fasten on a pair of snowshoes.



Of course experts, as well as beginners, occasionally take a tumble, but this is almost always due to carelessness or an improperly fastened shoe. Probably the most common mishap is caused by stepping on one's own foot, so to speak; that is, by placing one shoe over the other, which frequently causes an impromptu somersault; a careless venture on the ice may cause a slip and a tumble, but few of these are ever serious, most of them are laughable.

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Winter Sports for Husky Scouts

I remember one time I put on a pair of snowshoes and attempted to go down the steps to a front porch; half way down I was astonished to find that I was not strong enough to lift my foot. I had attracted considerable attention and every one but myself saw that the tail of one of the shoes overlapped the one I was trying to lift, thus holding it firmly on the step. Of course, I could not lift my foot without lifting my whole body. It was great sport for the spectators and every one had a hearty laugh, and after all is said and done if you cannot have a laugh yourself the next best thing is to make others laugh; when you have done that you have done your good turn as a scout.

A Tree as a Good Scout

By Scoutmaster Ralph W. Allen

Troop 4, Richmond Hill, L. I.

1. A tree is *trustworthy:* I can depend upon it. I can trust it to do what is expected of it. It faithfully stays in its place and does its work well.
2. A tree is *loyal:* It is true to the laws of its nature. It does not play double.
3. A tree is *helpful:* It works for me, building wood, holding the earth in place, purifying the atmosphere and screening from the wind and sun; also furnishing fruit for food and shelter for birds.
4. A tree is *friendly:* It is a good companion, standing near me and holding out its hands to me. It makes me feel comfortable to be with it.
5. A tree is *courteous:* It behaves itself well, minds its own business and doesn't intrude into the affairs of others.
6. A tree is *kind:* It is good to me and doesn't frighten or annoy me.
7. A tree is *obedient:* It obeys the law of a higher power and does as it is told, working in accordance with the rules.
8. A tree is *cheerful:* It looks up to the sun and does not draw away. It waves its hands in glee in the breeze and makes me feel glad to be near it.
9. A tree is *thrifty:* It uses the available material and does not waste any. It produces wood, fertilizer, food, conserves water and provides for the future.
10. A tree is *brave:* It struggles against difficulties and persists in growing in competition with others, and even in discouraging surroundings and among enemies.
11. A tree is *clean:* It takes care of itself and cleans itself of worn out branches. Although growing in dirt, it produces clean wood and it even works at purifying the atmosphere we breathe.
12. A tree is *reverent:* It constantly looks up at God and does not rebel. It respects the rights of others and acknowledges the right of God to rule its life.

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Making an Ice Yacht

By Dan Beard

Diagrams by the Author

KIND-HEARTED old Jack Crawford, the poet scout, attended a Buckskin Night dinner at the Campfire Club of America, along with Colonel Bill Cody, Buffalo Jones and other heroes of the mountains and plains, when the writer was president of that club, and he asked Captain Jack to write him a toast. Inasmuch as Captain Jack was a scout and Cody was a scout and Buffalo Jones was a scout, I think his toast will be interesting to you Boy Scouts. It has a swing to it, a western breeziness which is contagious. Of course, if it was written now it would have Roosevelt's name in it, but the Colonel was alive and happy and a member of the same club at that time. Here is the way the toast goes:

"To our absent brothers living,
To our absent comrades dead,
To Almighty God—Thanksgiving
For the lives our heroes led—
Lincoln, Crockett, Boone and Carson,
Custer with the flowing hair,
Shivington, the fighting parson—
May we meet them over there!"

Since then Cody, Jones, Roosevelt and Captain Jack himself have all crossed the Great Divide.

I think it was at the last interview the writer had with Colonel Cody that he thanked him for his efforts to keep the memory of the old scouts green in the minds of the boys of to-day. Of course, it doesn't require any effort to keep the name of Roosevelt green, he was so lately with us and he was such a whole-souled, boyish, enthusiastic fellow that we do not yet realize that he has left us. Personally, the writer is always expecting to again feel a firm grasp on his arm, as the Colonel used to give it, when boylike he would slip up behind him as he was walking along Fifth Avenue or Broadway.

Everything that the Colonel did, informally, was boyish. One time the writer was hanging on a strap in a street car and somebody put a foot on his; he moved his foot but to no purpose, the other man's foot was on it again. Three times he moved his foot away and at last wheeled around about ready to fight, only to look into the laughing face of the great President of the United States.

Colonel Roosevelt was scornful about oversensitive and overeducated men who held themselves aloof from the strife and hurly-burly of politics and business. He himself was a highly educated man and a college graduate, but he never was a "highbrow," he never was a fussy, oversensitive, sissy man, he was our best example of a great, boyish, powerful HE-MAN, and he was a Boy Scout and connected with the Boy Scouts until the time of his death.

I never knew General Custer very well, but I have met him on two or three occasions and I have an autographed photo-

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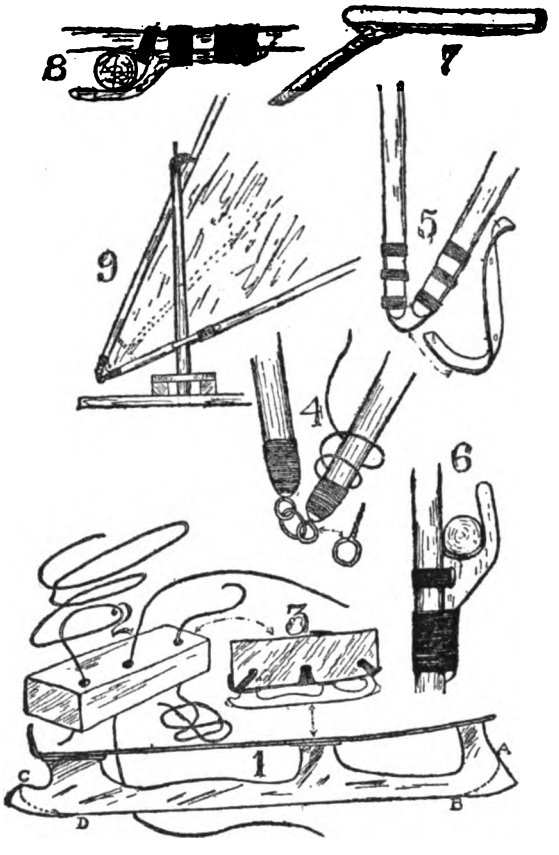
graph of him along with Tom Custer, General Ludlow and Bloody Knife the Sioux; they are grouped around a big grizzly bear which General Ludlow told me *he* shot and which Custer said *he* shot. Tom Custer and Little Bloody Knife I did not meet, probably they shot the bear too! But the point is this, all those scouts thought they shot that bear and they are just like a group of you boys, every one of them claimed it.



The first time I met General Custer was in Springfield, Illinois, at the dedication of the Lincoln Monument—I am telling these anecdotes to you boys so that you will know how very democratic and like boys these big men all were. The Generals of the Civil War, Grant, Sheridan, Sherman, Custer, and every one of that wonderful, picturesque crowd, were marching up the street to be present at some ceremony, and to make the appropriate addresses. I was only a boy at the time and I ran across the street to the curb of the sidewalk to watch the war heroes go by at close range, and what do you think those great Generals did? One of them recognized me and shouted, "Hello, Dan," and much to my embarrassment he stopped the whole cavalcade to shake hands with me and pass me along the line. That was when I met Custer, with his long yellow hair, for the first time; afterwards my father painted the General's portrait and I met him again in New York.

Imagine to-day all the great Generals of the World War marching along the sidewalk to attend some function and General Pershing, for instance, spying one of you boys, shouting out, "Hello, Dan," then stopping the cavalcade and introducing you to Foch, Beatty and all the other gold-ribbed men—waugh! That would be funny, would it not? Yes, it would be awfully funny but it would be mighty embarrassing too; but there is no danger, boys, we are more formal nowadays than we used to be, there are too many people. An incident of that kind today would jam up Broadway, blockade the streets and hold up traffic for an hour or more. Still it is fun for me to remember all those war heroes and I am awfully glad they stopped to shake hands with me, so that I can tell you fellows about it and make these heroes seem more real to you.

Don't think that I have forgotten you boys because I am not telling you what to do and how to do it; the truth of the matter is I have made the diagrams for an ice boat, but I am not going into all the details, telling you how to drive a nail and how to tie the string because you are now

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Making an Ice Yacht

scouts and I think you know how to do it yourselves. Besides, I have tried to so make the diagrams that they will be plain enough for you to understand, without written descriptions to tell just how to make an ice boat with four boards, five blocks and three old skates. Did I say an ice boat? We will take that back; what I meant was an ice yacht, not a very large one, but one if successfully built that will carry you over the black February ice so fast that it will take your breath away.

Fig. 1 shows an old ice skate. You will note that the skate has a point at the toe of the runner, but the runner should be rounded off and this can be done on the grindstone, or the skate-man may do it for you. It should be ground down to the dotted line AB at the toe and CB at the heel; this is to prevent the toes sticking in the ice and tripping the yacht and making it spill you.

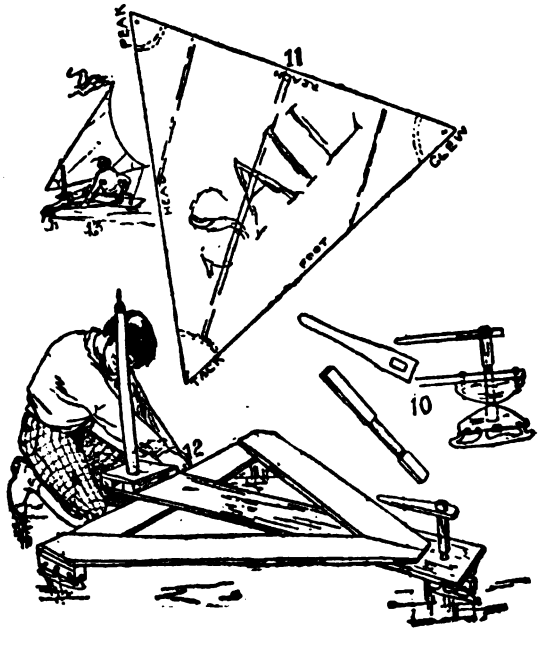
Fig. 2 shows a block of wood with holes bored through it and strings or copper wires run through the holes. Fig. 3 shows the skate lashed through the block of wood, two of these skates are thus lashed to blocks and the blocks securely fastened by screws to the cross or T board of the yacht. Another skate is simply fastened to another block and the block is fastened to the rudder handle or helm (Fig. 10). The sail (Fig. 11) is what is known as a lateen sail, and the two booms—more properly speaking, the two spars—of the sail are joined together by a ring (Fig. 4). First a couple of screw eyes are put into the ends of the spars, and then the ends of the spars are securely lashed with good wire or good twine, or you can use an old strap, first tacking it to the ends of the spars and then lashing it to make it secure (Fig. 5). The lower spar or boom has a half cleat lashed to it to fit around the mast (Fig. 6). This may be more crudely made by taking a branch of green wood (Fig. 7), flattening off one side of the main branch, as shown in the diagram, then lashing the forked end down until it forms a proper curve as in Fig. 8. If you leave this lashed in that position for about a week, or until it dries, it will retain the curve (Fig. 8) desired.

The mast is a short one with an iron peg in the top (Figs. 9 and 12). The mast is set in a bench (Fig. 9), or, more properly speaking, "stepped" in a bench, at the bow of the boat.

There remains nothing for you to do now but to lash your sails to the spars and set up your craft and try it on the ice (Fig. 13).

You must use some judgment with your ice boat, or ice yacht, and not try any monkey business on thin ice. Be sure that the ice will bear you and the boat before you try it, and then your parents will not scold the writer for telling you how to do things which may cause you to break through the ice.

Where there is no ice, scouts can use bicycle wheels in place of skate runners and



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have a prairie schooner which will sail over the hard sandy beaches of Florida almost as rapidly as over the ice in Maine, Michigan, Wisconsin or Canada.

Fig. 12 shows the framework of the yacht. Fig. 10 shows the construction of the rudder, Fig. 12 shows the plan of the sail and Fig. 13 shows your little boat in working order. Go to it and build one, hoist your sail and let 'er go Gallagher!

Build it before the warm wind comes up from the south, melts the snow on the banks, softens the ice and ends your winter sports.

The Moon of Difficulties

By Dan Beard

THE tenderfoot goes to the Almanac for the names of the days, weeks and months, the Almanac goes to the highbrows for the names, and the highbrows, who are the classic scholars, go back to Greece and Rome to find names which are old enough to be dignified and called scholarly; nothing is scholarly and classic unless it has moss on its back, gray hair and white whiskers. For this reason the highbrows have named the first month of the year from an old mythical god of the Romans who was a sort of a heavenly flunky, butler or door-opener of the Roman heaven. His services were in special demand at the beginning and the ending of all undertakings, he held a staff in his right hand, which was, as near as I can find out, a scout staff, and in his left hand he carried a key like St. Peter. Such a man to-day we would call a "James," but this old duffer's name was Janus, and so our highbrows called the first month after him "January."

But we scouts do not call the first month January, we would rather take the American Indian name for it and call it the Moon of Difficulties, or take the U. S. A. name for it and call it Pike's Moon, because doughty old Zebulon Pike, the explorer, was born January the 5th, 1779, and of course you all know that Pike's Peak was named after our friend Zeb. You also know that it is a mountain peak that became famous in the early days of the rush of emigrants and gold diggers, when in defiance of hostile Indians and the difficulties of the trail, the sturdy pioneers painted in big letters across the white canvas covers of their prairie schooners, the impudent and daring American phrase "PIKE'S PEAK OR BUST."

A good grammarian and a lover of classic English language might, with propriety, be shocked at such an expression, as would also our smug society people be shocked at the appearance and manners of the men cracking their bull scorchers who drove the twenty ox teams and marked the path with their own skeletons so that railroads might follow them and bear on their steel rails luxurious palace cars.

All of which, boys, goes to show that there are some qualities which stand higher than good grammar, higher than the most perfect English, higher than the most polished rhetoric, and one of those qualities is the GRIT which is so forcibly expressed in the old slogan of "Pike's Peak or Bust," hence we have adopted this for the motto of January, for the motto of the Moon of Difficulties. We cannot all of us go to Pike's Peak for our midwinter hike, and none of us propose to "bust" if we can help ourselves, but we can all shoulder our packs and beat it over the frozen ground for some good camping place.

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Fixing Up Your Fishing Rod

By Ladd Plumley

IN these days many boys own good fishing rods, that is the rods were good when they were new. Like everything else fishing rods need considerable care when not in use; indeed, fishing rods that are not taken proper care of are soon almost worthless. It is not so much actual use that destroys rods as it is actual abuse.

A fishing rod, and particularly a split bamboo rod, will become warped, crooked and brittle if it is stored through a single winter in a corner near a steam pipe or in a hot closet. The best place for rods is in an attic, or other place where there is no undue heat.

Windings on a rod are easily made when you know how and impossible to make if you don't know how. Use sewing silk of the color you prefer or to match the other windings of the rod. Do not wax the silk. Begin by winding a length of the silk over its end, and as you continue see to it that every coil is close to its neighbor. When the winding is completed, finish off with the "invisible knot," as it is called. This is the knot for securing rod windings that is used by professional rod makers, and it is the only knot that will firmly secure windings on rods. One of the simplest methods for tying the invisible knot is shown in the figure herewith. You make a loop with an extra bit of the sewing silk—a four or five inch length—and wind four or five coils of the winding silk over the loop of the sewing silk. The end of the winding silk is now pulled through the loop, and the loop pulled under the finished winding, the end of the winding silk being cut close into the coils.

The color of the silk of the winding will change when varnished unless thin glue is used on the coils. After the glue is dry the winding can be varnished. It can also be said that thin glue thus used on a rod winding makes a rigid wrapping that is almost as strong as a band of solid metal.

All good fishing rods should have a coat of varnish every winter. Never use shellac varnish for fishing rods; shellac is not waterproof, and, besides, shellac sometimes changes in color to a dirty white when the rod is exposed to dampness. Rod varnish can be bought for about thirty-five cents a bottle in tackle stores, or the varnish known as "spar varnish" can be used.

When varnishing a rod you must have a cord across the top of a room or a workshop for hanging the joints where they will not be touched until they are dry. The cord can be fastened to nails driven into the tops of a window frame and a door frame. Twist bits of wire into the ferrules and bend the wire into hooks for supporting the joints. If the rod shows places where the varnish is scaled away, it should have two or three coats of varnish. Never put on another coat of varnish until the former has become hard. And the best brush for varnishing rods is a brush with very stiff bristles.

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How to Build a Block House

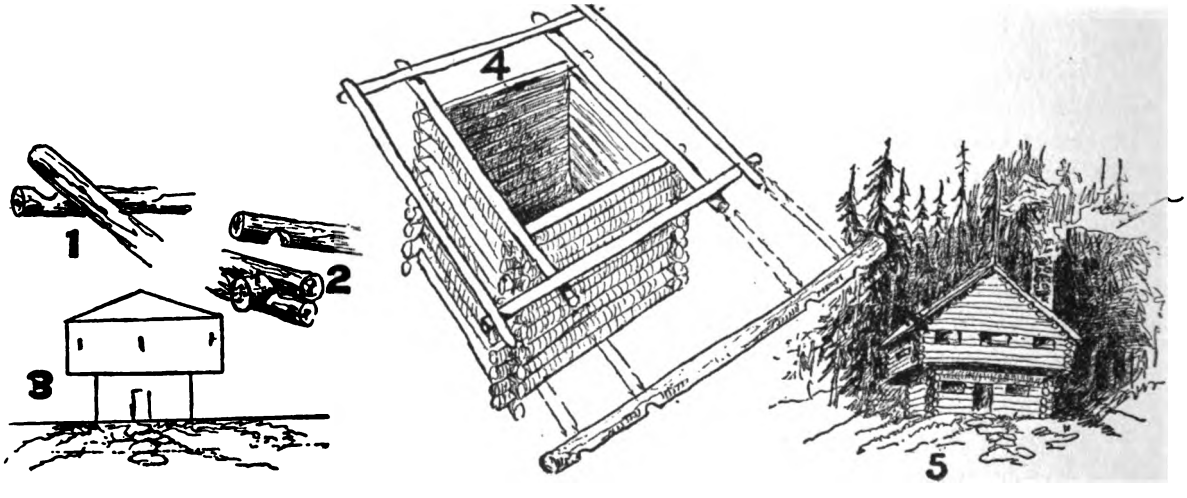
By Dan Beard

A GOOD battering ram could knock down a log house and great pieces of timber from the forests were sometimes used on our border to smash in the gateways to the forts, hence blockhouses were built with the second story projecting over the first story so that the riflemen could shoot down and have a wider range, and thus protect the fort and its precious arms and ammunition, and its still more precious lives of the stalwart pioneers, their fearless wives and brave little tow-headed children, from enemies with battering rams.

All Boy Scouts should know how to build a block-house, and every time they build a two-story log house it should be in the form of a blockhouse. The blockhouse has the second story projecting on all sides several feet over the first story. (Figs. 3, 4, and 5.)

Figs. 1, 2 and 4 show how the logs are put together, either for the log house or the blockhouse. The second story (Figs. 4, 5) is made by simply allowing the two top logs of the top story to extend to the required distance beyond their fellows, then placing the two cross logs near the end of these logs and building up the second story just as the first was built. Now the practical advantage of this is that you have a committee room or meeting room upstairs with more space in it than the first floor, which may be used as an office, a lounging room or a living room. When the blockhouse is completed it should have a flagpole on the roof.

The roof to the blockhouse is made something like that of the Barabara, as the native shacks on the Bering Sea are called, and it may be thatched with bark, splits, shakes or clapboards, or thatched with straw or cattail reeds. A nicely made thatched roof looks very pretty, but it is also highly inflammable. The log house back of the cache in the photograph was



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How to Build a Block House

roofed with shingles gathered by the boys where they had been thrown away when another cabin had been reshingled. These old shingles were put on this little cabin four years ago and they still keep out the rain. Shingles that have been cast aside and ripped from the roofs of other buildings, when carefully selected and turned end for end, may be made to last for years and years on a cabin roof.

If you have a good director, a good gang boss, and lots of boys, it will take no time to erect any sort of cabin; the good gang boss keeps the boys from getting in each other's way, the great number of laborers makes it unnecessary for any boy to do heavy lifting; a piece of wood which one boy can not move, twenty boys can pick up and run away with.

Cut about forty logs eight or ten inches in diameter, twenty of them sixteen feet long and twenty of them fourteen feet long; slope the end off half and notch the other half to fit; put chunks in the cracks of the logs and daub them with mud. The gables are made of shorter logs until they reach what is called the comb, the ends sloped down to suit the pitch of the roof. It being now ready for covering, cut poles five to six inches in diameter sixteen feet long, or the length of the house, notch them down on the gables about three and a half feet apart. Cut down a large dead chestnut tree, square the butt and saw off cuts four feet long, split them in blocks about six inches square, take a frow and rive shakes half an inch thick, lay them lengthwise on the aforesaid poles or rafters, breaking joints, weight them down with small poles. You are now ready for the floor.

Cut poles six inches in diameter, length the width of the cabin, for lower joints, place them about four feet apart, cut a tree of some soft wood, saw logs about six or eight feet long, split into slabs about three inches thick, hew smooth; with these make the floor. Make the door of splits the same as the roof only longer; the fastening is a wooden latch with a string hanging on the outside. Put in one window, fourteen by sixteen inches, with greased paper for glass. Make the ceiling with poles for joists covered with clapboards.

For the fireplace and chimney, saw out an opening six feet wide out of one end of the house, make it six feet high from the ground, case up the aperture, enclose this opening, extending back far enough for the back wall of the fireplace and as high as the opening. Dig some yellow, red or blue clay, dampen it, and, with a small maul, beat down and form our hearth, jambs and back wall. Generally the jambs and back wall are about a foot thick. Next, split sticks the proper length for the size of your chimney, about an inch thick and one and a half wide. Use the clay for mortar and build your chimney to the desired height. This makes a comfortable dwelling without a nail, glass or paint. Move in and have a "hoe down" and house warming, as did your ancestors.

You want to make your "hoe down" a really American party, as the "hoe down" is. No fancy caterer to serve foolish French dishes with unpronounceable names made of "stuff" to put good American stomachs out of commission. When you have your "hoe down" serve substantial food and don't overlook corn cakes and flapjacks.

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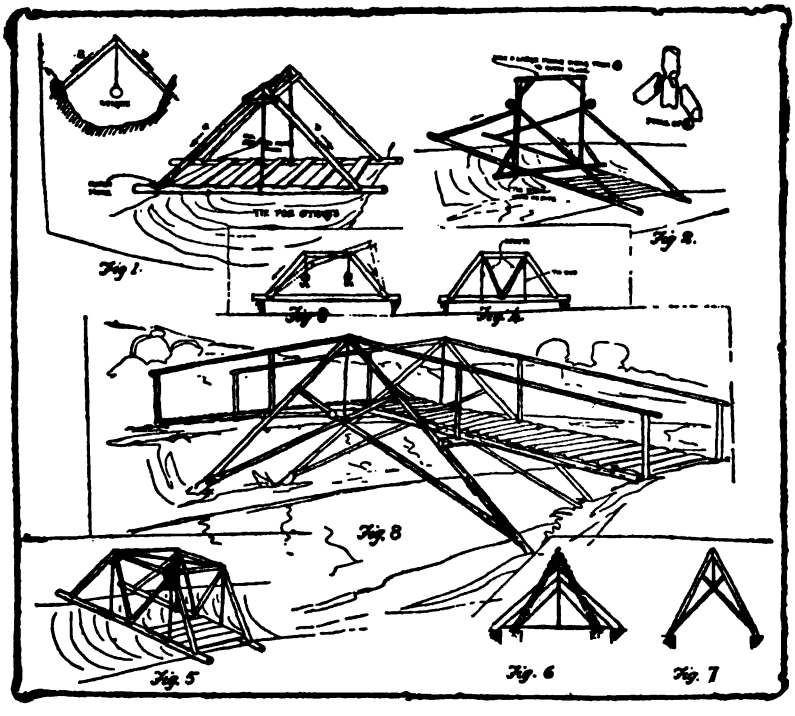
Building Rustic Bridges with Trusses

By Harold V. Walsh

TO know how to make a truss bridge you should know how a truss works, so that you can use any one of various types in your construction to meet the particular demands of the situation.

The simplest form of truss that can be made of tree trunks is shown in Fig. 1, and can be used for making bridges over short spans. The two leaning members (a) and (b) act to hold up any weight hung from the top. This weight can be the walk of the bridge and its load, hung by another member at the center from this point. The weight upon these leaning members at the top will be carried down through them equally to the foot. In order to hold the load, these timbers must be kept from spreading at the bottom, either by sticking them hard into a sloping bank or by tying them together at the bottom with another wooden member or beam used to support the walk of the bridge. A true truss is made only when this outward push of the struts is held together by this lower member. When these three pieces are used, we have the simplest form of truss that can be made. The tie down the center is put in merely to take the weight from the walk of the bridge up to the top, and transmit it down through the two struts.

If this simple truss is used in building a bridge, a very satisfactory type can be made, and one which will span as much as twenty feet, before the timbers become so heavy that they are difficult to handle. This truss is called the King Rod Truss and is one of the oldest types of trusses ever used.



In carrying out the principles of this truss in building a rustic bridge, a few practical methods of construction must be resorted to. First of all the bridge

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must be made of two trusses like the one shown, and these trusses must be fastened together to hold up the walk of the bridge. The tie rods in the centers of the two trusses are fastened together in the form shown in Fig. 2, and the member at the bottom is fastened by tying it with rope or wire around a notch in the upright. The diagonal braces are used for stiffening the whole frame. This center frame acts like a large stirrup iron which is hung from the apex (a) of the leaning struts to hold up the weight of the walk. The two girders for the walk are placed over the lower members of this stirrup and the leaning struts spiked to them, so that they act as the lower members of the truss and tie them together to prevent them from pushing out. When this framework is complete, the flooring can be nailed directly upon the two girders, and can be made of barrel staves, logs sawn in half or waste boards from the saw mill.

The Queen Rod Truss is another type that can be used for making rustic bridges and is simple in principle. In Fig. 3 the two loads can be supported by the props until one is made heavier than the other, when the truss will collapse, as shown by the dotted lines. In order to prevent this collapse the struts shown in Fig. 4 must be added, and the tie rods introduced to carry the weight of the floor up to the apex. It will be noted that this truss looks much like the King Rod Trusses joined together with a third one upside down.

To build this truss in a rustic bridge, the two can be laid out on the ground and built separately, and then set up parallel to each other across the span as Fig. 5. The two apexes on each truss can be joined together and braced, as shown, and the flooring nailed across the bottom member. This truss can be used for greater spans than the King Rod Truss.

Another type of simple truss is shown in Fig. 7 and is called the Scissor Truss. If we take a simple King Rod Truss, as shown in Fig. 6, and shorten the center rod, the action pulls the two struts together and bends up the lower tie beam to the new position. Therefore, if a truss is built upon these principles, the lower member can be raised up in this manner, so that it will allow of more head room beneath the truss. This makes a good type of truss for a rustic bridge where head room is desirable and boats want to pass underneath.

Such a bridge can be made, as shown in Fig. 8, and no bracing is needed over the top of the walk to stiffen it, for this can be done underneath it as the picture shows.

The principles which are behind these types of trusses can be varied and any one with average mechanical ability can exercise his skill in solving the particular problems of the stream or ravine he must cross. The fun of building bridges upon real engineering laws is far greater than merely copying some bridge that has been seen without knowing the reasons for each and every member of the structure.

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Boys Tell How to Make

Signalling and Camp Lantern

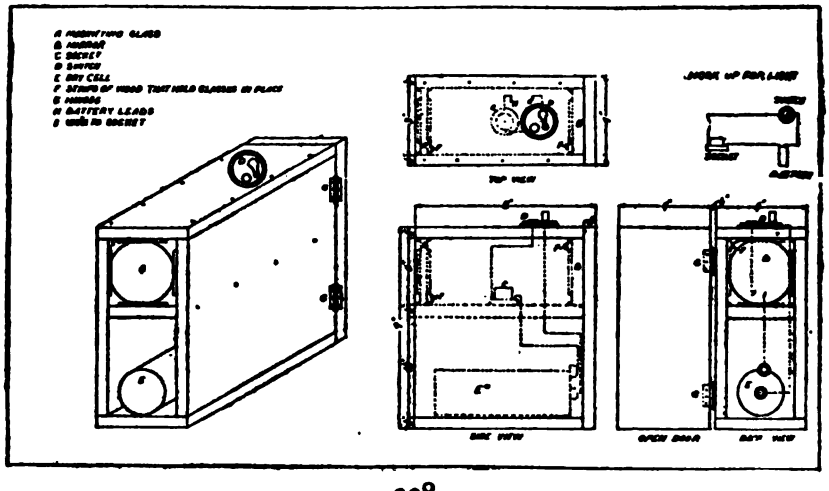
By George Chesky, Age 15

THE above lantern can be easily constructed and with little cost. The necessary parts for the construction of it are very simple and may be easily secured. The first thing to get is the magnifying glass (A) and mirror (B). These should be at least 3 inches in diameter. The next things to get are a flashlight globe and socket (C), battery (E), and switch (D). This is the working part of the lantern. Now for the construction of the case.

First get the two (2) sideboards which are ½"x7½"x8", next get the top and bottom boards, which are ½"x4"x7½", now get a board ½"x3"x7½"; this is the middle board. On this board place the socket in the center and wire it up as illustrated. Now nail the two (2) side pieces on, making sure the middle board is placed 4 inches from the top. Now get 12 strips of wood (F), ⅛"x⅛"x1". These are to hold the glasses (A and B) in place, which may be easily seen in the drawing. Nail these in place before the top is put on, allowing enough for your glasses in between them. Now mount the switch on the top board and drill two (2) holes in it, so that the wire leading from the switch may be connected to the socket (C) and battery (E). Before nailing the top board make sure you insert the magnifying glass (A) and mirror (B) in between strips (F).

Now nail the bottom board on, and get a board ½"x4"x9" for a door if desired. It is better to have a door because it is easier to change the globe and cell. The door is hinged as shown.

A telegraph key or push button may be used instead of the switch for signaling purposes.



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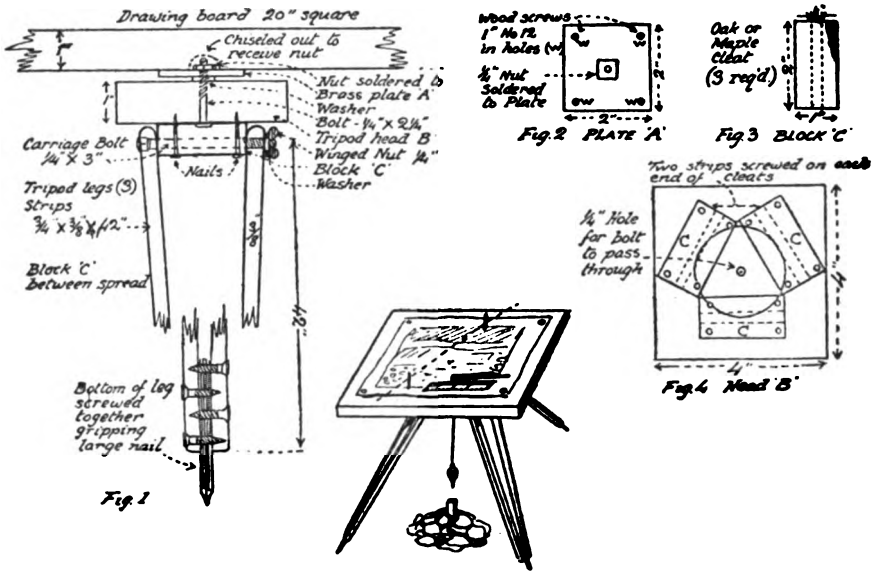
Boys Tell How to Make

A Plane Table

By Eugene Sieger

Desiring to make a map, which is one of the first class requirements, I was in need of a plane table. I set about to make one at a small cost as I have described below and as illustrated in my sketches.

First secure an old drawing board about 20 ins. square or, if no drawing board is available, a new bread board will serve the purpose. To insure its proper stability it should be mounted on a strong tripod so that it may be turned and "oriented" without moving the legs.



A plate (A) of brass or other metal 1/8 in. thick, is drilled as shown in Fig. 2. The four outside holes (W) being drilled for 1 in. No. 12 wood screws to pass through so that it can be screwed to the bottom of the drawing board. The center hole is drilled for a 1/4-in. bolt to pass through. Over this hole a 1/4-in. nut is soldered. The table must be drilled and chiseled out in the center to counter sink the nut on the brass plate and receive about 1/4 in. of the quarter-inch bolt passing through the nut as shown in Fig. 1.

The tripod legs are made of 6 strips of wood 3/4 in. x 3/8 in. x 42 in. Two of these strips are screwed together at the bottom and gripping a large nail between them, form a leg. Do the same with the other four legs, screwing them together in pairs. At the top they are spread apart and a cleat of oak or maple 2 in. x 1 in. x 3/4 in. is wedged between them lengthwise, as shown in Fig. 1.

Nail cleats (C) to tripod head (B), Fig. 4. Now drill a 1/4-in. hole through the top of the leg and block (C). Push a 1/4-in. x 3 in. bolt through the hole and put a washer on the end. Screw a wing nut on it to tighten the legs. The wing nut ends may have to be filed off because of the lack of space. When the wing nut is loosened the legs should hinge freely, but

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when tight they should hold considerable weight without sprawling out.

The tripod head is a block (B) 4 ins. square and 1 in. thick. On the bottom of this block are to be nailed the cleats (C), so as to form a triangle (see Fig. 4).

If a more expensive table is desired a T-level may be set in one of the corners, while in the other a small pocket compass may be fastened. This makes it more convenient to orient and to set the table level, but is not necessary.

With this plane table and a few simple small tools, such as a small carpenter's level, a tape to measure a few distances with, a compass, a ruler, graduated to tenths of an inch if possible, a hard pencil and a few needles a very legible map may be made.

There is no room here to describe, in detail, the full use of the plane table, but I shall condense its description.

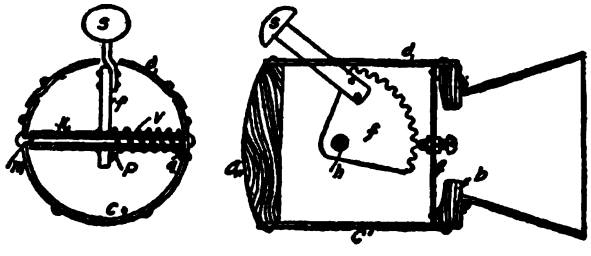
First set the plane table level over a spot on the ground which will appear on the map as Sta. A. Orient it, that is, have one of the four sides of your paper facing north.

To begin the map a point on the paper is chosen to represent the station on the ground over which the table is set. Stick a needle vertically in the paper. Mark this needle hole Sta. A. Sight past this needle toward some object which is wanted on the map, like the corner of a house or a large tree. Stick a second needle in the paper in line with the first and the object to be located. Draw a light line connecting the two needles. This line gives the direction of the object from Sta. A. After all the visible objects' directions are ruled go with your plane table to a second station, where you must again set up the plane table as before, marking the station B. Orient your board and repeat the process, sighting the same objects. Where the lines of direction of the two stations meet is the exact location of the object. The distance between the two stations should be measured with the tape measure and the scale marked accordingly.

A Home-made Horn for the Bicycle

By James P. Lewis

The drawing shows a neat and simple warning signal that can be built by the average boy himself. It is a simplified form of the popular vibrating diaphragm type. We will first make the casing for the "works." Cut out two circles of hard wood (a) and (b) about 3 in. in diameter. Round off (a) as shown. Cut a hole in the center of (b) 1¼ in. in diameter, and cut away the inside as shown to give room for the diaphragm to vibrate. Using these as ends make a cylinder of tin from a tomato can. Put this on in two pieces (c) and (d) Fig. 2. Then (d) can be taken on and off adjusting the horn. Fasten tin to ends with small brads or screws. Use a piece of stovepipe iron, or "tin" of similar thickness, for the diaphragm (e). To the center of this—using a nut on each side — fix a short $^{8}/_{32}$ machine screw, with end nicely rounded. Now for



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the rack which is the hardest part. Take a piece of ⅛ inch iron, and cut to shape of (f). First take a point (h), which is to be the center of the axle, and strike an arc with a compass. This will give us a segment of a circle. With a small three-cornered file, make notches or teeth along this arc, making them rounded and as even as possible. (m) is a piece of heavy wire, soldered to the case. A small piece of brass tubing is slipped on this as at (k). The tubing is soldered in the axle hole of the rack. The tubing working on the axle (m) will prevent the rack from wobbling as it otherwise would. Get a rather strong spiral spring (v) and slip it over the tubing. Fasten one end of spring to a little pin (p) on rack, and the other end to a pin (q) on casing. Rivet the handle (s) to the rack, and make a slit in the casing for it to work through. The spring returns the handle each time it is depressed. To complete the horn, fasten a flare to the front. This will look nice if bent up out of aluminum, and the rest of the horn painted or enameled black.

Plans For a Library Table Lamp or Electrolier

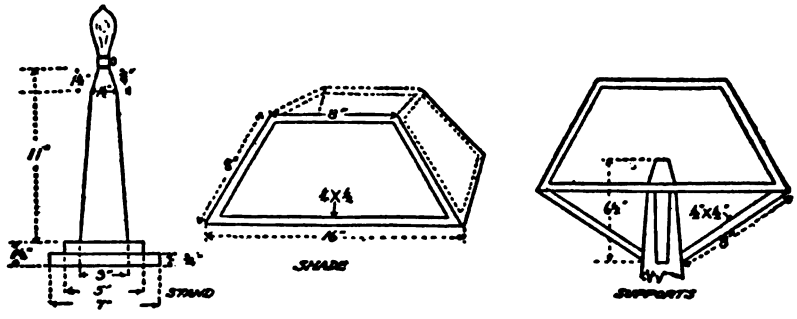
By J. Wayne Moore, Jr., Age 13

First secure 2 pieces of wood, one 5″ x 5″ x ¾″, and the other 7″ x 7″ x ¾″. Sandpaper these and drill a ½″ hole in the center of each. On the larger cut a groove from the center to one side, for the cord. Then join them together by nailing or glueing, getting the small one exactly in the center of the large one. The large one should extend 1″ on each side. The groove on the larger should, of course, be on the bottom. This is the base.

Next get a piece of wood 3″ x 3″ x 11″. Bring this to the shape of a pyramid by planing ¾″ off of each side of the top. Now draw a line on each side, 1½″ from the top. Plane from this point up towards the top until it comes to a point ¾″ square. Drill a ½″ hole through the center of this, drilling first at one end and then at the other, until they meet in the middle. Fasten this to the base, leaving 1″ of the base all around it (see Fig. 1).

Get a socket, about 7′ of drop cord, a plug, and a piece of pipe about 6″ long, threaded to fit the lower part of the socket. This is to make it steady. Run the cord through the hole in the stand and connect the top to the terminals of the socket. The cord should also go through the pipe which should be screwed to the socket. The slack cord should now be pulled out of the hole and tacked in the groove cut for it. The plug is now attached to the drop cord. This completes the stand of our lamp and now we will build the shade.

Cut 4 pieces of wood ¼″ x ½″ by 12″, and 12 pieces ½″ x ¼″ x 8″. To get the angles right, lay 4 of the pieces together.



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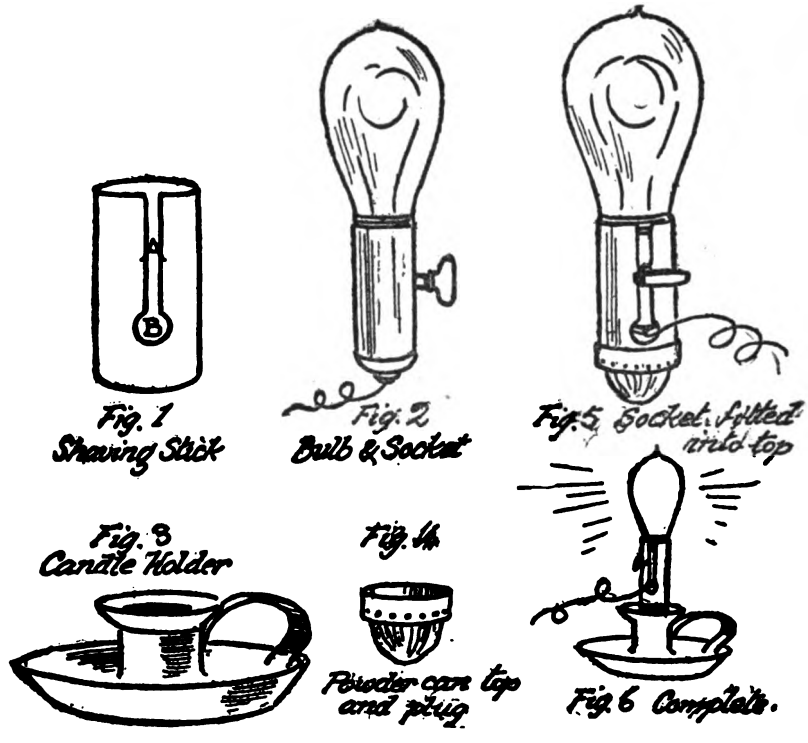
Cut these and put glue on the joints and nail together. We now have one side of our frame. Make 4 of these. Join them together, nailing the right side of each one to the left side of the one next to it. This makes the left side of each one ¼" wider than the right side. Now cut 4 pieces of paper a little larger than the open place, so that it will fit to the inner side and not push through. Fasten these down by nailing small strips behind them. After this is done we have to join the shade to the stand. We do this with 4 pieces of wood 8" x ¾" x ¾" nailed to the stand 6½" from the top. The ends are cut so as to make a kind of square. The shade is nailed to this.

Now get some stain—mahogany or oak—and stain the stand, and the wooden part of the shade.

A Table Lamp

By Scout Lawrence Davis, Age 12

THE materials needed are 1 candle-holder, 1 shaving stick holder, 1 extension cord socket and bulb (electric) and 1 talcum powder can top.



First cut a slit in shaving stick holder as in Fig. 1. Then slip the socket and bulb into slit (a) of Fig. 1 and the extension cord in slit (b). Fig. 2 shows bulb and socket. Next cut a wooden plug to fit tightly in hole in top of Fig. 3. Then nail wooden plug onto bottom of powder can top as in Fig. 4.

This done slip Fig. 4 into place in the candle holder. Then fit your shaving stick holder and socket into the top of the powder can top, bottom first, as in Fig. 5. Fig. 6 shows the lamp completed.

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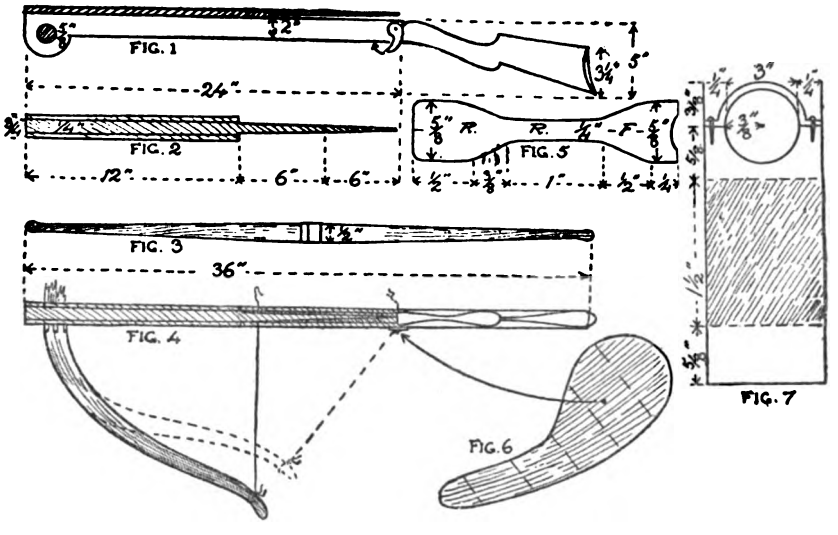
Boys Tell How to Make

A Crossbow

Henrik M. Hansen, Jr., of Norway, Age 16

The crossbow is a weapon handed down from generation to generation, a plaything in comparison with what it was. Before the organization of the Boy Scouts reached Norway there were formed crossbow companies in many cities. And, believe me, they could use them!

The stock, Fig. 1, is made from a piece of wood 3 feet long, 5 in. broad and 1½ in. thick. Having mounted and cut stock out, the hole for the bow is bored 1½ in. in diameter, with its center 1⅜ in. from top and front of bow. The making of the groove along the top of the stock for the arrow is ¾ in. in diameter, leaving ¼ in. on either side. Fig. 7 shows this best. The groove is 2 ft. long from front to notch.



The overwork is to steady the arrow in its course; but the bow may be without it. It is made from a piece of tin 2 ft. long and 1¾ in. broad. Having measured 1 ft. in and cut the strips ½ in. broad and 1 ft. long of each side leaving ¾ in., the last half foot should be formed as a point. The half circle of the overwork is done by bending it over a rod ¾ in. in diameter. The strips ¼ in. on either side of the first foot of the overwork should be bent so as to fasten it to the stock. The method for this is shown in Fig. 7.

The bow is made from a strong and elastic piece of wood. The best is a juniper or evergreen, 3 ft. long and 1½ in. in the middle; refer to Fig. 3.

A combination of cock and trigger is shown on Fig. 6, as the piece above where it is tacked is used as cock, the lower as trigger. By pushing the trigger forward the cock goes back and lifts the rope of the bow. On account of the elasticity of the bow, the rope springs forward, putting the arrow in movement.

Front view of stock is shown in Fig. 7. The dark place is the hole where the bow goes through the stock 1½ in. in diameter, ⅝ in. around, showing the groove and the overwork.

The finished bow is shown in Fig. 4. Where the bow fits in the stock some small pieces of wood should be driven in to steady it as shown.

One of the arrows is shown in Fig. 5. The arrow is made from a piece of wood 25⅝ in. long, ⅝ in. broad and ⅝ in. thick. The first half inch of the head of arrow is round, the next ⅜ in. slopes gradually down from ⅝ in. to 2–8 in. the thickness of the next inch, called the stem, which is round; but the tail is flat.

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Making Model Aëroplanes

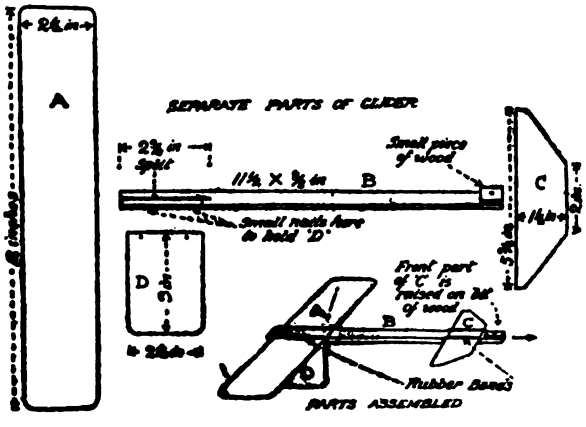
By F. A. Collins

ANY ONE who intends to build and fly model aëroplanes should begin his experiments with a simple glider. It is a very easy matter to get flights of over 200 feet with a little craft which can be constructed in a few minutes or bought for a few cents. These tests give the beginner the best kind of practice in balancing the little craft and adjusting the planes and success when he takes up a power-driven model. Your glider can be made to fly high or low at surprising speed and even loop the loop.

A glider, it is scarcely necessary to explain, is a light little air craft of the same form as a model aëroplane but without motive power. It is usually thrown into the air and the length of the flight depends largely upon skill in handling it. A simple method of securing long flights is to have the glider launched with considerable force by means of a rubber band. Two sticks are driven firmly into the ground about two feet apart and the tops on the same level three feet from the ground. One or more strands of rubber are then fastened at either end to the tops of the sticks. The model is thrown just as a stone is shot from a sling shot. A small projection or hook is placed at the forward end of the glider which is hooked on the rubber strands. The glider is then pulled back two or three feet, as far as the rubber will stretch, and after being carefully aimed released. With a little practice a long and graceful flight is assured.

In giving a glider or a power-driven model the behavior of the little craft depends largely upon the position of the planes or wings. The planes are fastened to the stick by means of rubber bands and can be readily moved back and forth until properly adjusted. It will be found that by curving them slightly upward the length of the flights may be increased. By making the wings slightly convex the glider can be given a graceful upward motion and this may be increased until it will loop the loop. It is a fascinating field of experiment and one who has gained this experience will be sure of success in building and flying the regular models.

These little gliders may be purchased in most toy shops for ten cents or bought by mail. For those who prefer to build them for themselves a few simple directions will suffice. The central stick should measure one-half by one-eighth of an inch and twelve inches in length. The larger plane should be made of white wood about one-sixteenth of an inch thick and two and one-half inches by twelve inches.



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The smaller plane, carried forward, measures two and one-half by five and one-half inches. The edges of both planes should be rounded. A small vertical rudder two and one-half by three inches is mortised into the center of the stick. A small block of wood or a hook is fastened at the forward end of the stick on its upper side to hook over the rubber band.

The making of hollow spars for model aeroplanes is a fascinating piece of carpentry work. It is important, of course, to have the frame for the model aeroplane as light and as strong as possible, and an appreciable amount of weight can be saved by this method. A serviceable spar of extreme lightness can be made of paper. The best plan is to take a stick or a little rod which has the diameter of the core of the spar, and build up the paper tube. First cover the form with paper and wrap smoothly around this a layer of strong brown paper, overlapping the edges, and gluing firmly in position. As each layer of paper is applied, paint the whole with glue. The spar can be made as strong as you desire by repeating the wrapping operation. When the paper tube is dry and hard, the core is then slipped out and the spar is cut to the desired length. The diameter should be kept as small as possible in order to reduce the resistance. In some models, the hollowed papered spars are made sufficiently large to allow the strands of a rubber motor to pass through them. This plan makes an unusual looking model, but serves no useful purpose.

There are several methods of making hollow spars of wood which any boy handy with tools may carry out successfully. One plan is to cut a groove in the edge of a board of suitable wood, using a special plane, or plow, for the purpose. The grooved edge of the board is then sawed off, which gives one a cross-section of general U shape. These pieces are then carefully planed and sand-papered to the desidered thinness. Two such pieces are then glued together and carefully bound until they are dry. The holes are then carefully sand-papered and varnished. A hollow tube of extreme lightness and possessing surprising strength is thus obtained.

Still another plan is to cut a groove from the edge of the board as before, and after cutting it loose to cover the open channel with a thin strip which is glued firmly in position. The spar formed in this way is even lighter than the one just described. All of these forms with the hollow spars may be strengthened by covering them with silk, and varnishing. When two such spars are to be joined, or when a hollow spar is to be fastened to another piece, it is well to plug up the hollow part to lend it strength.

Still another plan is to obtain very thin spruce and wrap it around a rod or piece of tubing, lapping and gluing the edges firmly together. When the rod is withdrawn, a very efficient hollow wooden tube is obtained. It is quite possible to design these hollow spars to give a stream line. This is not important, of course, in the case of a longitudinal spar, but when they are used for cross-pieces, it is desirable that they present as little resistance as possible to the wind. It will be found convenient, in using a hollow round spar, to employ a metal clamp, which can be bought at the supply houses, to attach it to other parts. The spar is itself so light, and the walls so thin, that it is difficult to splice it effectively.

Can a model aëroplane be flown with a single plane? The experiment has been tried repeatedly in building both models and man-carrying machines with more or less success. It is quite possible that the aëroplanes of the future both large and small will have but one wing. There is a very interesting field for experiment along this line. It is a very simple matter to

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experiment with models, and the boy who may chance to hit upon a solution of the problem will perform a real service.

The scientific problem involved is very simple. To gain stability in any heavier than air craft it is necessary to devise some plan by which the centers of gravity and of pressure will be made to coincide and be kept together. Now the center of gravity is constant. The center of pressure is moved from one point to another by a change of speed, or the angle at which the aëroplane moves.

Obviously the great problem is to keep the center of pressure from shifting. This can only be done of course by keeping the plane stable. Now the presence of a second plane, either added as a tail or a front surface, obviously tends to stabilize the craft and keep the center of pressure from shifting back and forth. By keeping these planes well apart the problem is simplified. It becomes possible to fly with narrow planes thus reducing the weight and increasing the speed of the craft.

The pilot of a man-carrying aëroplane can keep the center of pressure stable by adjusting the tail or the front plane, so that if the center of pressure is shifted he can readjust his craft so that the centers of gravity and pressure will coincide. In some respects the designing and building of a successful model aëroplane is more difficult than of a large machine. It is impossible of course to change the position of the planes once the model is aloft. The builder must fix his planes in such a position that the stability will be automatic.

To design a model aëroplane which will fly with a single plane all these factors must be considered. It will be necessary to hit upon some form of plane which will make it possible to keep the centers of gravity and of pressure stable. Some builders have attempted this by building a wing with a straight edge at the rear and curving its front surface, making the plane almost a perfect half-circle. Another plan is to provide the wing with ears, so to speak, at the outer ends and with small hinges at the front and back which can be adjusted at will. In the successful one plane model the surface will probably have to be carried well forward of the propellers. Here is a fascinating field of experiment and in view of the success of model builders in the past there is every reason to believe that the problem will be solved.

Model aëroplanes are not out of season even in midwinter for to-day a good model aëroplane can hold its own against comparatively high wind.

An effective model especially suited for winter flying can be made with wings of solid wood. With the directions heretofore given in mind, construct a single stick monoplane driven by one propeller. The stick should not be much more than 2 ft. in length, preferably of spruce. Two planes can be cut from thin strips of white wood. Make the larger plane 2 in. by 10 in. and the smaller plane 2 in. by 4 in. The white wood may be only ⅛ in. thick.

The edges of the planes should be cut down and sandpapered. It will be found a good plan to curve the plane slightly near the outer or entering edge by holding it over the steam of a kettle. When it is softened fasten the plane over some curved surface and allow it to dry in this shape. The lifting power of these planes, small as they are, will be found surprisingly large. A little experimenting by changing curves will prove very interesting. The larger plane should be fastened rigidly to the stick by being tied with rubber bands so that it can be moved back and forth readily to find the best position.

The smaller plane should be mounted in the same way near the forward end of the stick.

Equip this plane with a small propeller

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of not more than 5 in. This may be mounted by attaching an L shape piece of metal to the lower side of the stick at its extreme end, and running the shaft of the propeller through a hole drilled in the vertical surface. The other end of the rubber strand of the propeller should be attached to a hook placed on the lower end of the stick at the forward end.

The weakest point in most model aëroplanes is the propeller. It will well repay the model builder to study propeller designing very carefully, and to take every possible precaution to have his propellers accurately carved and balanced. The length of flights is increased more by improving the propeller than by any other means.

There is no such thing as one hundred per cent efficiency in propellers. Few air-screw propellers have an efficiency of even eighty per cent, and it is safe to place the average at from seventy to seventy-five per cent. In other words, if the propeller has a pitch of five feet, only three and one-half feet will be actually realized. To get the best results, from each type of model you must have propellers especially designed for the work they are to do. If you are flying a long distance racing model, you should use a propeller with a high pitch, and a medium blade of large diameter. In case your model is designed for speed, the propeller should have a medium pitch.

It is possible to use propellers with much longer pitch screws when twin screws are used. It is understood, of course, that the propeller turns in the opposite direction. The tendency of the screw to turn the machine over, or its "torque," is balanced in the case of twin screw machines.

No part of the aëroplane has probably been tested with such care as the wings. Thousand of tests have been made in the wind tunnels of the physical laboratories both here and abroad which are the basis for aëroplane designing.

One of the fundamental rules established in this way is that the lift of the wing, or plane, varies as the angle of incidence. In other words, if you double the angle at which the plane is set to the horizontal, the lift of the wing is doubled. Reduce the angle by one-half, and the lift of the wing is reduced one-half of the original amount. This is only true, however, up to a certain angle. If the angle at which the plane is set is increased too far, the lift actually grows less. In designing models, it is not well to employ the angle of incidence to more than six degrees, and half this will be found to work better. The lift of the wing, it has been found by these tests, varies as the square of the velocity; that is to say, if the speed of your model aëroplane is doubled, the lift of the wing becomes four times the original amount, while, if the speed be reduced by one-half, the lift decreases to one-fourth of its original amount. To put it differently, the higher the speed, the smaller need be the angle of incidence and the size of the wings for supporting purposes. The smaller the angle of incidence, again, the greater is the lift in proportion to the power used.

The action of the air on a wing will perhaps be better understood if we think of the atmosphere as a fluid. The density of the air compares with that of water as "1 to 800." Now as the wing of an aëroplane rises it forces down the mass of air. It will be seen, therefore, that before a model aëroplane can leave the ground the weight of the air displaced must be equal, at least, to the weight of the aëroplane. The greater the mass of air displaced, the higher will the machine rise. It is well to bear in mind that there are three prime factors controlling the success of the aeroplane—area of the wing, angle of incidence, and speed at which the model flies.

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For the Wireless Amateur

By J. Andrew White

President of the National Amateur Wireless Association

Cost of Apparatus

IT is impossible to answer definitely the many questions which reach us regarding the cost of apparatus. Those desiring to purchase apparatus and establish receiving stations will do well to consult some reputable dealer in the locality. It must be borne in mind that different conditions obtain in different localities, and an apparatus which will be satisfactory for a certain distance in one place may not give satisfaction in an entirely different part of the country. The best plan after all is to get the best advice in your neighborhood and make actual tests.

The general rule has been laid down that your receiving set will cost $1 a mile for each mile that separates you from the broadcasting station you pick up. This applies, however, only for short distances. When working over a distance of more than twenty-five miles your set should include a vacuum tube detector. It is impossible again to tell just how far such a set will work. If there are no obstructions in your vicinity such a set should give satisfactory results up to 200 miles.

There seems to be a mistaken idea in some quarters that a radio set is likely to be a constant source of expense. As a matter of fact the initial cost is practically the only outlay. Unless you have an accident to your instruments, which is very unlikely, if you exercise proper care, the only expense for operating your station will be that of charging the battery, which is slight, and occasional replacement of a vacuum tube, if used.

As a rule the amateur will do well to build up a set in which the control is as simple as possible. The sensitiveness of a receiving set is not necessarily dependent upon the number of its knobs and dials. Sets are offered for sale which will impress the layman in such matters by the apparent completeness of the parts, whereas a simpler set made by a reliable manufacturer and containing only the best material will probably give better results.

The prospective purchaser should bear in mind that there are three general classes of receivers. These are the crystal set, the vacuum tube set and the tuner and amplifier which employs the regenerative principle. The first of these will often give surprising results, but head phones have to be worn and it is essential that the crystal used should be carefully selected. It may be necessary to try two or more crystals to get the best results. It cannot be expected that these inexpensive sets will contain electrical circuit which permits tuning as delicately as the better grades, and lacking selectivity, they are liable to be subject to the interference from stations in the vicinity. The vacuum tube sets as a rule are twenty times or more as sensitive as the crystal sets and work over a much larger range. The tubes used with tuners without the regeneration

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circuit often give excellent results, but the extra cost which is small will prove an excellent investment. The purchaser of a radio set should be cautious about buying second-hand sets.

Remember, a loud speaker cannot be attached to a radio receiver of the crystal detector type.

Make Your Own Apparatus

Of course it can be done. Any average boy can construct all the apparatus necessary for establishing a receiving station which will enable him to listen on the concerts, sermons, government reports and all the rest of the broadcasting. The actual cost of materials necessary will probably not exceed $5. In the judgment of the writer, however, it is a question if it is after all worth while to make one's own apparatus complete to the last detail.

The best plan it seems to us is to purchase the more important parts separately and assemble them yourself. Some parts such as the antenna, for instance, may be home made. In time as you gain experience you may learn to make the parts with sufficient skill to give satisfactory results. There are of course many efficient sets which have been made entirely by amateurs, but the average beginner is scarcely to be trusted with so delicate a piece of work.

A still better plan is to buy the parts separately which cannot readily be made and assemble them. One may begin with a very cheap set and add to it from time to time, so that the cost will not be a great strain. Every few months an investment of a few dollars may be made so that in time you have built up a really effective station which will do excellent work while the cost has never at any time been a serious problem.

Erecting the Antenna

The antenna of a radio receiving set offers no difficulties to the average boy. One of the great advantages of receiving sets is that a single wire antenna will answer admirably for picking up music and other entertainments broadcasted through the air. The various forms of spread antenna are not difficult to install, but the single wire form is simpler and its details are readily mastered by all. This is one of the parts of your outfit which you can make for yourself at very slight expense without danger of going wrong.

The materials required will cost very little. You will need a couple of porcelain cleats for insulating which will cost but a few cents. The best wire is number 14 copper. There are several forms of insulators on the market which cost much more but you will scarcely need them. The wires of the antenna must be insulated with the greatest care, but this can be done with cheap as well as expensive material.

Select a position for your antenna as high above the ground as possible. It is more important, however, that the wire would be free from obstructions, such as nearby towers, steel buildings or trees than that it should be carried high in the air. It is not essential that it should be quite alone, for that is often impossible, but at least the antenna should not be heavily shaded by foliage or dominated by steel construction.

One of the cleats supporting the antenna should be fastened to an upright, whatever it may be, by a wire. It may be hooked to the support or even be tied about it. When this cleat is in position pass one end of your antenna wire through the opposite hole in the cleat and fasten with a tight twist. The second cleat is fastened to a similar support fifty or one hundred feet away. Draw the antenna wire tightly from

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the first cleat and pass it through the hole to the second cleat.

A simple and effective plan is to continue the antenna wire from the cleats to the lead-in of your receiving set. If the end of the antenna wire be fastened to the cleats with a twist it will be necessary to solder on the wire of your lead-in. It should only be the work of a few minutes to set up a simple antenna of this design. There is nothing to get out of order and in case it should break from any accident it is easily repaired.

The Range

The phrase "normal range" is usually employed in radio telephony to describe the effective or dependable range during daylight hours under rather unfavorable conditions. These conditions do not include thunderstorms or excessive displays of heat lightning. When the atmospheric conditions are favorable the range is often considerably increased. The night being as a rule much more favorable for transmission, the range during the hours of darkness is often several times that of the normal daylight range.

It will be found as a rule that stations working over a reliable daylight range are not affected by such troublesome phenomena as the "fading" or swinging of signals. At times signals, speech or music suddenly become weaker or even fade out entirely. This may be due to transmission causes not yet well understood, or it may be due to faulty reception, such as the weakening of the batteries, an exhausted filament or loose connections. The entire set should be carefully overhauled if fading or swinging is frequent. The fact remains that if one is working only over a "normal range" the chances of such faults appearing are reduced to a minimum.

Electric Wave Lengths

Anyone who has watched the motion of waves, made when a paddle stirs the water, will have noticed that the waves which have a long distance between their crests are produced by slow, steady disturbance, while the short waves are produced by the quick vibrations. It is the same with the electrical waves.

In measuring the wave length in radio the distance is counted between the two crests of the air waves. In the wave on water the crest is the highest point, in the radio wave the crest is the point at which the wave is most powerful or intense. The wave length in radio work varies widely, from the short 200 yard waves of the amateur stations to the great waves used in transoceanic work, which are at times more than eight miles in length.

The wave length of course depends upon the distance over which a radio message is to be transmitted. It has long been known that the longer waves are best suited for working for long distances and the short waves are more efficient in working for short distances.

It must be remembered that each of these wave lengths corresponds to a definite frequency of vibrations, or, in other words, to the transmitting station oscillator per second. The largest number of oscillations is found in the short waves, exactly as in the case of water waves. The frequency in the short 200 meter waves is one and a half million vibrations per second. In the waves measuring 15,000 meters in length, it is 20,000 vibrations per second. Even in the longest waves it will be seen the number of oscillations is very high.

All this sounds very complicated and it might be supposed that a complicated test would be necessary to ascertain the number of oscillations, but it is now possible to get the wave length of a transmitter quickly

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and accurately by means of an ingenious instrument called the wave meter, which is set on the ground under the aerial of a radio station and when adjusted gives on a dial the exact wave length of that station. The following table will be serviceable for radio experiments and should be kept for reference:

Distance of Transmission	*Wave Lengths Commonly Used*
25 miles.....	200 meters (203 yards)—amateur station.
100 miles.....	600 meters (609 yards)—ship station.
500 miles.....	3000 meters (1.7 miles)—overland station.
3000 miles.....	15,000 meters (8.7 miles—transoceanic station

How to Make a Radio Receiver

Every boy should be interested in building a wireless receiver, something he can point to one day and say: "It works; try it." That's a great moment, when your friends hear music or voices or dots and dashes coming over the air.

The heart of a wireless receiver is a small piece of mineral which you can buy for a few cents, which detects the wireless currents. You need a cup to contain it, and this is easily made, as explained later. Then there is the tuning coil, which is harder to make, but is necessary so the receiver can be adjusted to the length of the incoming wireless wave. Another essential device is a condenser, which prevents the currents from passing through the tuning coil instead of the telephone receiver. This article will tell you how to make these three devices.

The tuning coil first. It is a very simple matter to build a double slide tuner for receiving; no special tools are needed and the materials required are cheap and easily obtained.

Begin with the tuning coil. You will first need two wooden tuner heads made from blocks of some hard wood, measuring three inches square and a half inch thick. On the face of each of these blocks turn a ring two and a half inches in diameter and a quarter inch deep to hold the cardboard tube around which the wires are to be wound.

The cardboard tube should measure two and a half inches in diameter and seven inches in length. Before winding dry it thoroughly in an oven and paint with a thick coat of shellac on both sides. Purchase a half pound of No. 26 B and S gauge single cotton covered wire for winding. Wind this smoothly and closely in a single layer, starting and finishing one-half inch in from each end of the tube. The whole should then be treated to a second coat of shellac.

You will need two slider rods over which move the sliders for making contact with the wire of the coil. The rods are three-sixteenths of an inch square and seven and one-half inches long. The sliders are made of square brass tubes which will fit over the rods. There are two of these, each measuring one-half an inch in length. To the side of each of these solder a short piece of No. 30 gauge phosphor bronze strip, three-quarters of an inch long and three sixteenths of an inch wide, bent in the shape shown in the drawing.

To assemble the tuning coil the ends of the tube are secured in the circular grooves in the wooden heads. Next slip the slides into position on the rods. These are mounted across the top of the tuning coil and secured with brass nails. The rods must be at the exact center of the heads and parallel with the axis of the coil. The bronze slips on the lower sides of the

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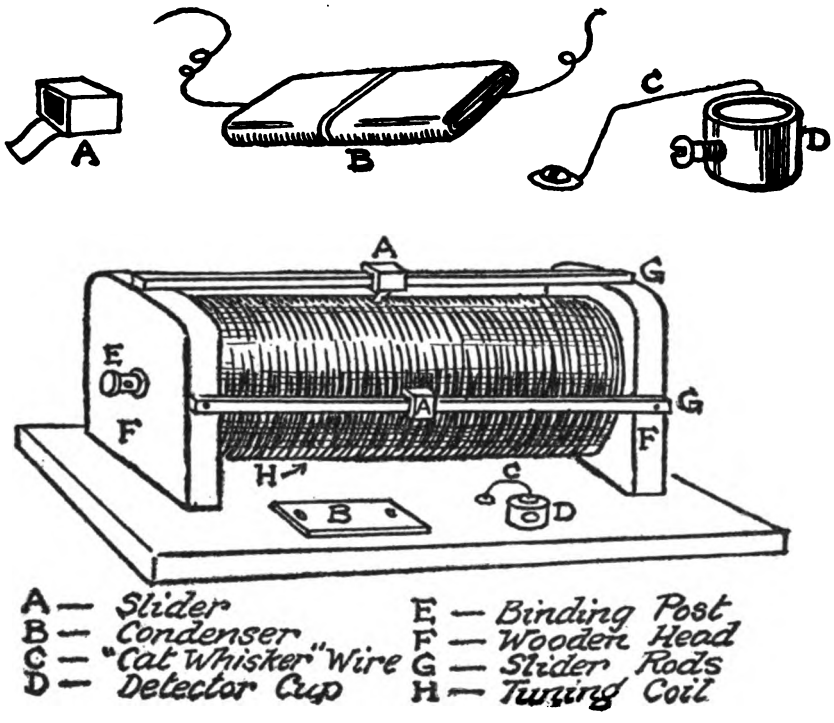
sliders should be bent so that they will run firmly, but without friction over the wire. Scrape the insulation off the wire in a straight, narrow path under each of the sliders so that there will be a good contact with each wire.

Mount a binding post at the center of each of the tuner heads.

To connect up, fasten the right hand end of the coil with the binding post on the right hand head and connect the binding post on the left hand head with the sliding rod mounted on the front of the coil, and the tuning coil is complete.

The fixed condenser, which is next to be made, consists of two strips of tinfoil twenty inches in length and two inches wide. Solder pieces of copper wire six inches long to an end of each strip. Obtain three sheets of paraffined paper two and a half by twenty-two inches. To roll the condenser lay a strip of tinfoil in the center of one of the strips of paraffin paper. Now place a second strip of tinfoil in the center of the other sheet of paper, keeping the wires attached to this strip of tinfoil at the opposite end from the wire on the other strip. Next place a third sheet of paper over the top strip of tinfoil. A guide is needed in rolling the condenser, so cut a piece of cardboard one inch wide and two and a half inches long and place it at one end of the pile of paper and tinfoil. As you roll up the whole thing be careful to keep the edges even and the tinfoil from slipping or sliding. Do not bend the cardboard in rolling. The condensers should not look like a roll of paper, but should be flat. To keep the condenser from unrolling tie it firmly with string. When finished it should look like the illustration.

If you have carried out these instructions carefully the two strips of tinfoil will be completely insulated by the strips of paper.



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Should they come in contact at any point the condenser will be short-circuited and useless.

Enclose the condenser, when finished, in a metal case and mount it on the base of the receiving set. The case requires a sheet of tin two inches in width and four in length, in which you cut a notch one-quarter of an inch square at each corner. The flanges thus formed are then bent in, forming an open, shallow box. To fasten the box to the base of the receiving set drill two holes near either end and nail it down firmly, using brass nails.

The detector parts consist of a brass cup five-eights of an inch in diameter and a small piece of phosphor bronze wire with several screws to hold them in position. A set screw is fitted in the cup to firmly clamp the mineral in position. The method of mounting the detector parts is shown in the accompanying illustration. The base on which the parts are mounted should be of hard wood and measure nine inches in length and six in width, with a thickness of one and a half inches. To make the set attractive stain the wood to match the tuner heads and give it a coat of shellac or varnish.

When you have made the tuner, condenser and detector cup, as described, your wireless receiver is well along toward completion.

How to Assemble and Operate the Receiving Outfit

Now we come to assembly and operation of the receiver to finish up the job.

When the base for your receiving set has been varnished and completely dried the parts should be carefully mounted upon it. Begin with the tuning coil. The coil should be placed about an inch from the side of the base and one-half inch in from the back. To fasten it in position pass two screws through the base from the under side, and have them enter the heads far enough to keep them firmly in position.

Mount your condenser in front of the tuning coil, a little to the left of the center. When covered it should be one-half an inch from the front edge and a trifle more from the right hand edge. Two holes should be drilled in the base for the wires from the condenser. To fasten the tin cover of the condenser in position use two brass nails and drill holes in the tin to secure them to the base.

The best position for the detector is in front of the tuning coil at the right of the condenser. A washer should be used at the rear end of the phospor bronze wire to separate it from the head of the screw, fastening it to the base board. The construction, it will be seen, is very simple and can readily be mastered by the average boy.

The connecting up of the set and its operation is also very simple. It is obvious, of course, that the binding post at the right end of the tuner, which is connected with the wire which runs around the tube, is the one which should be connected with the aerial. The binding post at the other end of the tuner should be connected with the sliding rod on the front of the coil which carries the slider marked 2. The ground connection should be made with this post.

The slider rod on the front of the coil should be connected with the left hand wire leading out of the condenser. This should be run down through the base and along the under side. Another wire should connect the right hand condenser wire with the screw which holds the detector cup in position, and run to the binding post at the lower right hand corner of the base. Another wire runs from this post to the screw which fastens the phosphor bronze wire or "cat whisker" to the base, and continues along the bottom of the base to a hole and up through to the slider rod mounted on the top of the coil. The telephone receiver

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is connected with the two posts at the lower right hand corner of the base.

It is understood, of course, that no two wires can come in contact at any point or short circuiting will occur. The arrangement of the base, as described, makes it possible to connect up the various parts and keep the wires well apart from one another. To fasten the wires to the base place them under the heads of small tacks or glue strips of paper over them. It will be well to insulate the base by raising it slightly above the table or rest upon which it stands. An effective plan is to drive four large round-headed brass tacks on the under side of the base at each of the four corners, taking care that it rests perfectly flat.

To connect up the set and make it ready for operation it is only necessary to connect the wire leading to the aerial to the binding post at the right hand end of the tuner. The ground connection has already been made. The telephone receiver, as heretofore explained, is connected with the two posts at the lower right hand corner of the base.

To place the detector in operation put a small crystal of galena about three-eighths of an inch square in the cup and fasten it securely in place by means of the set screw. Next, raise the end of the phosphor bronze wire, using a match or pencil, and let it fall on the crystal. The end of the wire should be slightly bent, so that it rests firmly on the crystal. Be careful not to touch the wire with the hands, but always adjust it by means of a small piece of wood.

With the telephone receivers at the ear now move the sliders and adjust the detectors until you pick up the messages in your neighborhood. The slides will probably have to be adjusted for each station. This adjustment is known as tuning. A little experience will enable any one quickly to adjust the instrument to get satisfactory results.

How Wireless Works

How does wireless work? That is the question heard on every hand.

There is a remarkable simplicity in the operation of a radio transmitting apparatus and the parts of most musical instruments, especially of the piano.

The transmitter may be said to consist of two parts, which correspond to the string of a piano and its sounding board. In the first place the string of the piano, or the corresponding vibrator or oscillator in the radio transmitting station, produce the clear tone of a given pitch when struck which is sent out through space. The device for sounding the note in a musical instrument, or of sending out the waves in the radio station, may vary, but the principle remains the same.

The sounding board of the piano may be compared in its action to the antenna in the transmitting station. The string of a piano when struck, however forcibly, does not make sufficient noise, and must be increased by an ingenious and sensitive sounding board. The oscillator in a sending station in the same way does not itself make enough disturbance to carry more than a short distance. The antenna is, therefore, formed of a large wire system strung high in the air, covering considerable territory, thus making it possible to fling out electro magnetic waves for great distances. In some of the new high-powered stations used for working over the seas the area covered by the aërial wires, or antenna system, may be measured by square miles.

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The receiving station may be compared to the action of an ear trumpet working with the ear drum, and the human mechanism for hearing. The receiving antenna for gathering the electric energy works much the same as the familiar instrument used by deaf people. When the system of wires strung aloft known as the antenna is struck by the radio waves, flung out by some distant transmitting station, it, of course, gathers more or less of their energy and has electric currents produced by them. The action is much the same as that of an ear trumpet, which gathers from the air the energy from the sound waves produced by the voice of a speaker, and as a consequence produces powerful air vibrations.

The electric energy picked from the air by the antenna is, in turn, transformed by the receiving apparatus and made audible, much the same as a telephone receiver or the ear drum responds to the vibrations of a musical note sent out by a piano and magnified by its sounding board. By means of a detector working with a special system of electric circuits all the energy which the antenna has gathered from the incoming radio wave is converted into a form which produces musical notes in a telephone receiver. Now the musical notes in a telephone receiver are called dots when they are short and dashes when they are longer, just as in telegraphy, and thus we have the code commonly used. The electric circuits and detector in the radio receiving station correspond therefore to the ear drum and the ear nerves.

By bearing this simple comparison in mind the general principle of radio transmission will never be confused.

Dispensing with the Antenna

The apparatus necessary for radio telephoning is daily becoming simpler. A few years ago the antenna was considered indispensable. Even for transmission for short distances a more or less elaborate system of wires suspended high in air must be installed. The next step was to simplify the antenna to a single wire, and string it only a short distance above the earth. It was found that as long as no steel structures or trees rose above the antenna it could do its work very well when it was just clear of the ground.

Now messages are received for considerable distances by a loop which can be placed in a room inside brick or stone walls. The frames holding the wires are often only three feet square with a few wires wound about them. The apparatus is comparatively inexpensive and is of course very easy to install and keep in operation. These loops are of course easily packed in a small space and carried about. The next step will doubtless be to connect up your receiving apparatus with the water pipes in your room at home.

Radio Aëroplane Finder

The radio telephone is proving indispensable to aviation. In the early days of wireless installation on aircraft the weight of the sets was an important consideration. The modern apparatus in use to-day is so simple that no aëroplane can afford to be without it. The sky-pilot, high in the air, is thus kept in constant communication with his base. In case anything goes wrong with his machine he can communicate with headquarters without a second's delay. The safety of flying is considerably increased by the marvelous development of wireless electricity.

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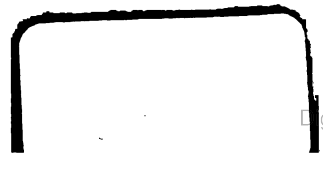

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